Belmore, Affordable Housing, State Significant Development - SSD-83257708

BASIX Assessment Report

Prepared for: Homes NSW

Project No: SYD3636
Date: 3 November 2025
Revision: 03

Project:	Belmore, Affordable Housing, State Significant Development - SSD-83257708
Location:	270-278 Burwood Road and 54 Lakemba Street Belmore, NSW 2192
Prepared by:	ADP Consulting Pty Ltd Level 6, 33 Erskine Street Sydney NSW 2000
Project No:	SYD3636
Revision:	03
Date:	3 November 2025

Rev	Date	Comment	Author	Signature	Technical Review	Signature	Authorisation	Signature
DRAFT	15/10/2025	BASIX - DA DRAFT issue	Max Campbell	MC	Khyati Saxena	KS	Khyati Saxena	KS
01	23/10/2025	BASIX - DA issue	Max Campbell	MC	Khyati Saxena	KS	Khyati Saxena	KS
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03	03/11/2025	BASIX – Amended DA issue	Max Campbell	MC	Khyati Saxena	KS	Khyati Saxena	KS

Project Team	
Client / Principal	Homes NSW
Architect	DKO Architecture

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Executive Summary

ADP Consulting has been engaged to undertake the following BASIX assessment and certification for the proposed residential development to be located at 270-278 Burwood Road and 54 Lakemba Street, Belmore NSW 2192.

The proposed development comprises of the following:

- A residential flat building comprising two eight storey buildings over two levels of shared basement, and 145 apartments
- Two levels of shared basement is for residential parking
- Ground level including communal facilities.

This BASIX report has been prepared to support the SSDA submission as a legislative requirement in accordance with the Environmental Planning and Assessment Regulation (2021) and Sustainable Buildings SEPP (2023).

Based on project specific inputs and the minimum legislative provisions outlined in this report, the proposed development meets the minimum BASIX requirements for **energy**, **water**, and **thermal performance** respectively.

In line with BASIX **material reporting** provisions, construction material specifications and estimated volumes have been provided for reporting purposes only. No performance targets are associated with this section, and compliance is not required

Table 1: BASIX Target Scores

BASIX	Target	Score Achieved	Compliance
Water	40%	**41%**	**Pass**
Energy	60%	**67%**	**Pass**
Thermal Performance	Pass	**Pass**	**Pass**
Materials	N/A (Reporting only)	**100%**	**N/A** (Reporting only)

The report also addresses the Secretary's Environmental Assessment Requirements (SEARs) for the project issued on 13 October 2025 which identified the following project-specific assessment requirements:

1. Identify how ESD principles (as defined in section 193 of the EP&A Regulation) are incorporated in the design and ongoing operation of the development.

1. Introduction

ADP Consulting has been engaged by Homes NSW to undertake the following BASIX assessment and certification for the proposed residential development located 270-278 Burwood Road and 54 Lakemba Street, NSW 2192.

The purpose of this report is to provide a summary of the Environmentally Sustainable Design (ESD) initiatives adopted as part of the proposed building design to meet mandatory BASIX requirements. Key areas of improvement within the BASIX water, energy and thermal comfort have been identified and meet the minimum compliance measures outlined by the state of NSW.

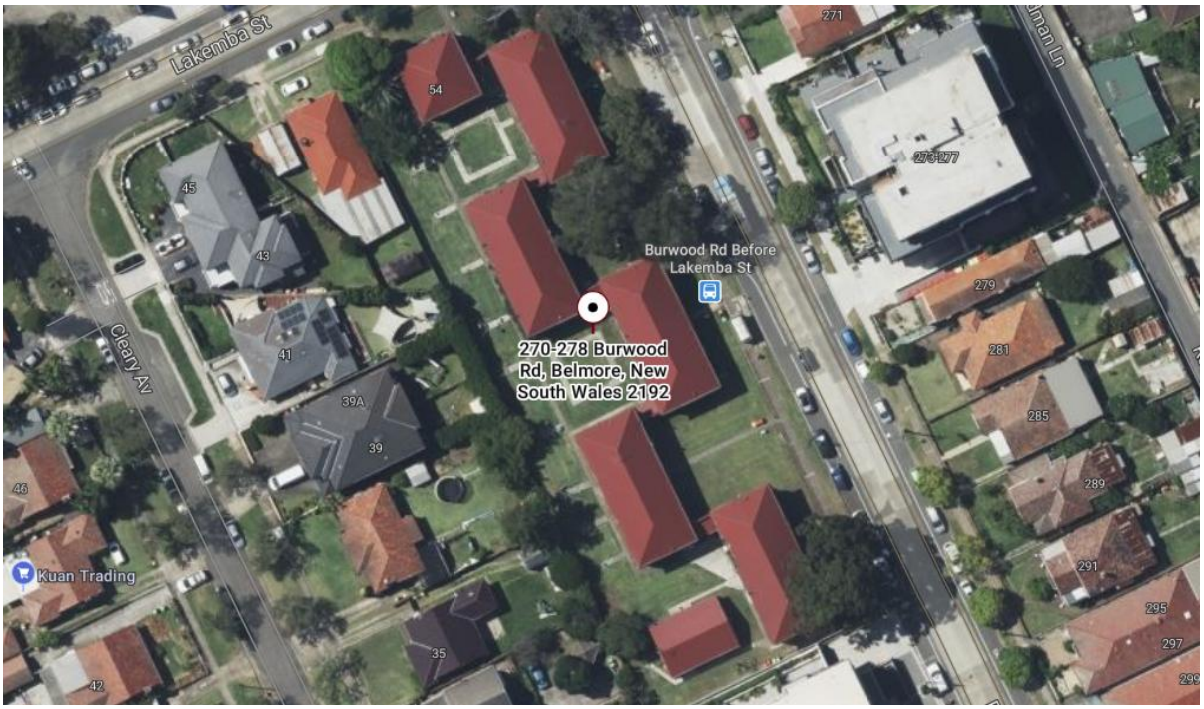
This report has been prepared as a contribution to the State Significant Development Application (SSDA) submission of the above noted project.

1.1 Project Context

The project site is in Belmore with a total site area of 4,281 sqm. To the east and west, the site faces a combination of residential buildings, mainly low-rise with a few mid-rise buildings. There is a local centre directly to the south of the project site, with Lakemba Street to the north.

The location is highly accessible, positioned on the edge of the Belmore local centre and within 350m walking distance of Belmore Station. A bus stop directly in front of the site on Burwood Road offers regular services to Campsie, Burwood, Abbortsford and Chiswick.

Figure 1 270-278 Burwood Road Site Context



The existing site comprises of seven one and two-storey red brick walk-up residential flat buildings, containing a total of 24 dwellings. A number of existing trees are also present on the site.

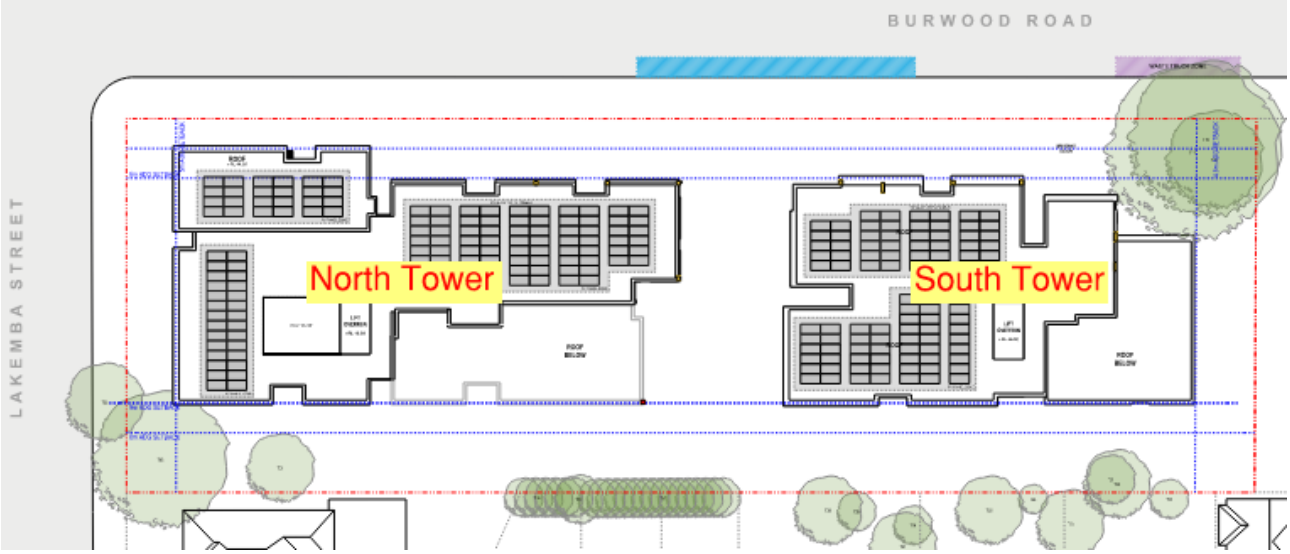
The proposed development comprises the construction of a new residential flat building for the purposes of affordable housing, a communal room and basement car parking including excavation, tree removal and associated servicing, landscaping and public domain works.

1.2 Building Context and Apartment Naming Convention

The two proposed towers are positioned directly opposite each other, with one tower located on the northern side of the project site, and one located on the southern side. The north tower contains 87 apartments, and the south tower is comprised of 58 apartment units.

For the sake of this BASIX assessment, both buildings will be separated as shown below:

Figure 2 North and South Towers

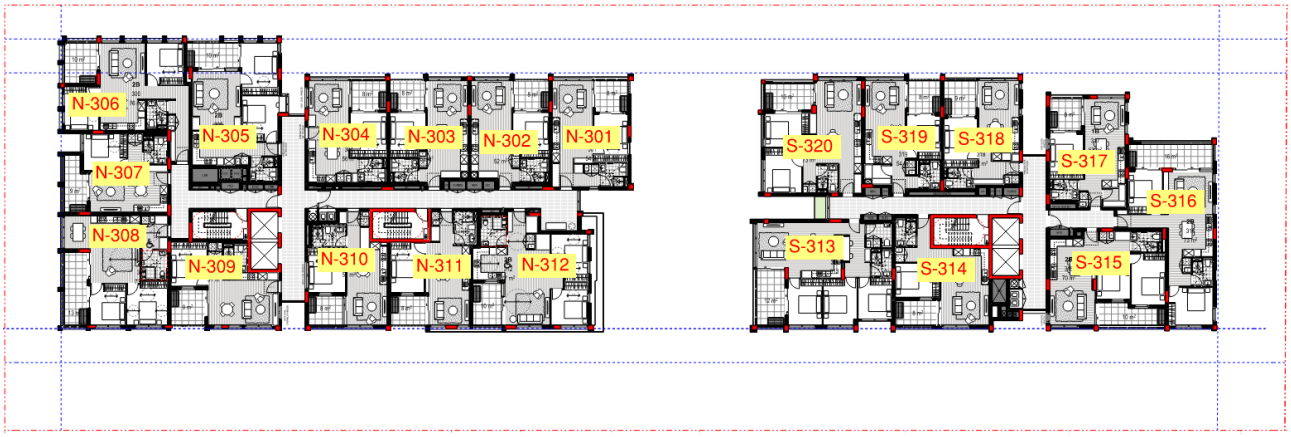


Therefore, apartments have followed a similar naming convention; depending on which building they are in they will contain a different prefix:

- Unit numbers starting with "N" indicate apartments in the northern tower
- Unit numbers starting with "S" indicate apartments in the southern tower

This is how units have been identified in the BASIX and NatHERS certificate. As an example, the following image shows how units on level 2 within both towers would be named.

Figure 3 Apartment Naming Convention



1.3 Assessment Assumptions and References

This BASIX assessment has been based on the following SSDA architectural drawings and updates provided periodically by DKO Architecture:

> Final SSDA Coordination Architectural drawings by DKO Architecture issued on 29/09/2025.

Revision	Date	Issue
A	29.09.2025	Issue for SSDA Submission

1.4 BASIX Assessment

The Building Sustainably Index (BASIX) for the state of NSW forms the minimum compliance control for any new residential (Class 1, 2 & SDA) developments as defined by the Department of Planning, Housing and Infrastructure (DPHI).

The BASIX assessment outlines a minimum target of improvement for the proposed development's water, energy, and thermal comfort performance. The minimum benchmark of improvement for each index is based on the location, size, height, and dwelling density of project development.

For this type of development, the following minimum BASIX targets must be achieved as defined by the State of NSW under the Sustainable Buildings SEPP (2023):

> 40% improvement in Water consumption

> 60% Improvement in Energy consumption

> All units to 'pass' the minimum thermal performance requirements for heating and cooling (as defined by the development's climate zone)

> Only the construction material specifications and volumes are required to be reported under BASIX Material reporting—there is no compliance target that needs to be achieved.

The minimum targets required for water and energy (40% and 60% respectively) represent a percentage saving and improvement for the development when compared to that of an average benchmark development for NSW.

The thermal comfort targets are assessed on an individual dwelling basis and are defined by the developments proposed location in NSW. Each dwelling must not exceed the maximum annual predicted heating and cooling load capacities outlined by BASIX; this is assessed using the NatHERS thermal comfort software HERO V4.1.

For the proposed development, the following individual dwelling targets must be achieved:

- Individual dwelling heating load: 34.4 MJ/m^2. yr
- Individual dwelling cooling load: 21.4 MJ/m^2. yr
- Individual dwelling total load: 38 MJ/m^2. yr
- Average heating load: 28.1 MJ/m^2. yr
- Average cooling load: 20.0 MJ/m^2. yr
- Average total load: 30 MJ/m^2. yr

1.4.1 Project-specific SEARs requirements

The report addresses the Secretary's Environmental Assessment Requirements (SEARs) for the project issued on 12 May 2025 which identified the following specific assessment requirements:

1. Identify how ESD principles (as defined in section 193 of the EP&A Regulation) are incorporated in the design and ongoing operation of the development.
2. Where relevant, provide an assessment of the development against the standards for non-residential development set out in Chapter 3 of State Environmental Planning Policy (Sustainable Buildings) 2022.

As the development is purely residential, the project is exempt from the second requirement.

The first SEARS requirement refers to section 193 of the EP&A Regulation (Environmental Planning and Assessment Regulation). Here it defines what the principles of a "ecologically sustainable development" as:

1. The precautionary principle
   - Section 2.1 and 2.3 align with the precautionary principle in relation to protecting humans against future climate stress by reducing the energy and water input over the project's lifetime.
2. Inter-generational equity
   - Section 2.1 and 2.3 align with intergenerational equity because these measures aim to reduce energy and water consumption, helping the next generation inherit natural resources no worse off than the current generation.
3. Conservation of biological diversity and ecological integrity
   - Section 2.1 aligns with conservation of biodiversity and ecological integrity through creation of habitat with landscaping and conservation of water through low water-use species.
4. Improved valuation, pricing, and incentive mechanisms
   - Section 2.1 and 2.3 align with this as these measures conserve water and energy, reducing utility bills for tenants and making the project a more attractive place to live; this bolsters the project value.

2. BASIX Compliance

The following section provides a summary of the water, energy and thermal comfort initiatives proposed for development to meet compliance with the minimum BASIX requirements.

2.1 Water Strategies

The following table outlines the water strategy proposed for the development. The project is currently achieving a **41% water efficiency improvement** on the BASIX average benchmark. The target is based on a minimum 40% compliance score.

This will be achieved providing the following water commitments are implemented:

Table 2: Water Commitments

BASIX Base Case	Water Conservation Strategies
Common Areas	**Fixtures and fittings[1] to be included:** > 4-star showerheads (>6 but ≤ 7.5 L/min) > 5-star kitchen and bathroom taps > 4-star flush toilets
Common Landscape Areas	> Area of lawn: 117 m^2 > Area of vegetated garden excluding lawn: 1248 m^2 > Area of low water-use species: 955.5 m^2
Individual Landscape Areas	> Nil
Individual Dwellings	**Fixtures and fittings to be included:** > 4-star showerheads (>4.5 but ≤ 6 L/min) > 5-star kitchen and bathroom taps > 4-star flush toilets
Appliances	**Appliances[2] to be included (In apartments):** > Dishwasher: N/A, not provided > Clothes Washer: N/A, not provided **Appliances to be included (In common area):** > N/A; no common laundry facility

[1] More information on water efficient fixtures and fittings can be found at www.waterrating.gov.au
[2] More information on water efficient appliances can be found at www.waterrating.gov.au

BASIX Base Case	Water Conservation Strategies
Alternative Water Source	> 10kL Rainwater Tank > Rainwater used to irrigate common landscape
Car washing bays	> N/A; no car washing bay
Fire Sprinkler Systems	> No closed loop Fire Sprinkler System
Spa	> N/A; no spa facility
BASIX Water Target	**40%**
BASIX Water Score	**41%**

2.2 Energy Strategies

The following table outlines the energy strategy proposed for the development. The project is currently achieving a **67% improvement** on the BASIX average benchmark. The target is based on a minimum 60% compliance score.

This will be achieved providing the following energy commitments are implemented:

Table 3: Energy Commitments

BASIX Base Case	Energy Conservation Strategies
Individual Dwellings	**Lighting and HVAC:** > Dedicated LED light fittings located throughout each dwelling[3] (All downlights to be sealed) > All kitchen, bathroom, and laundry exhausts to have individual fans ducted to the facade or roof with the following efficiency measures: – Kitchen: Manual on/off switch – Laundry: Interlocked to light – Bathroom: Interlocked to light and to run on 15-minute timer **Heating and cooling:** > 1-phase air conditioning, non-ducted system, EER 3.5-4.0 > Air-conditioning units in living rooms only > Ceiling fans in all living rooms and bedrooms
Central systems	**Central hot water system:** > Central hot water system: electric heat pump (air sourced) – 3.0< COP <=3.5 – R0.6 (~25mm) insulation to external and internal piping in building
Appliances (For Individual Dwellings)	**Efficient appliances[4] for each apartment as follows:** > Induction Cooktop & Electric Oven > Dishwasher: N/A, not provided > Clothes Washer: N/A, not provided
Common Areas	**Ventilation systems and efficiency measures as follows:** > Carpark – Ventilation (Exhaust/Supply); Carbon Monoxide +VSD fan > B2 Sewer Pump Room – Ventilation (Supply only); Continuous > B2 Carpark exhaust Fan Room - Ventilation (Supply only); Continuous > B1 Waste Room - Ventilation (Exhaust only); Continuous

[3] Dedicated LED must be the predominate (i.e. 80% of fittings) light fitting in each room

[4] More information on energy efficient appliances can be found at www.energyrating.gov.au

BASIX Base Case	Energy Conservation Strategies
	> B1 Bin Holding Area - Ventilation (Exhaust only); Continuous > B1 Rainwater Pump filtration Room - Ventilation (Exhaust only); Continuous > B1 Main Switch Room - Ventilation (Supply only); Continuous > B1 Main Comms Room - Ventilation (Supply only); Continuous > B1 Car Park supply Fan Room - Ventilation (Supply only); Continuous > B1 Cold water Tank Room - Ventilation (Exhaust only); Continuous > B1 Fire Pump Room - Ventilation (Supply and Exhaust only); Continuous > GF Waste Holding Area - Ventilation (Exhaust only); Continuous > GF BWR - Ventilation (Exhaust only); Continuous > GF Bike Shed - No mechanical ventilation > GL Communal Room - Air-conditioning; Time Clock or BMS Controlled > GL Meeting Room - Air-conditioning; Time Clock or BMS Controlled > GL W/C - Ventilation (Exhaust only); Time Clock or BMS Controlled > GL Lobby – Ventilation (Supply only), Time Clock or BMS Controlled > Fire Stairs – No mechanical ventilation > L1-L7 Hallways/Lobbies – Ventilation (Supply only); Continuous > L1-L7 Hallways/Lobbies Breezeway– No mechanical ventilation **Lighting systems and efficiency measures as follows:** > Carpark – LEDs, Time clock and motion sensors > B2 Sewer Pump Room – LEDs, Manual on / manual off > B2 Carpark Exhaust Fan Room – LEDs, Manual on / manual off > B1 Waste Room – LEDs, Time clock and motion sensors > B1 Bin Holding Area – LEDs, Time clock and motion sensors > B1 Rainwater Pump filtration Room - LEDs, Manual on / manual off > B1 Main Switch Room - LEDs, Manual on / manual off > B1 Main Comms Room - LEDs, Manual on / manual off > B1 Car Park supply Fan Room - LEDs, Manual on / manual off > B1 Cold water Tank Room - LEDs, Manual on / manual off > B1 Fire Pump Room - LEDs, Manual on / manual off > GF Waste Holding Area – LEDs, Time clock and motion sensors > GF BWR – LEDs, Time clock and motion sensors > GF Bike Shed – LEDs, Time clock and motion sensors > GL Communal Room – LEDs, Daylight sensor and motion sensors > GL Meeting Room – LEDs, Daylight sensor and motion sensors > GL W/C – LEDs, Time clock and motion sensors

BASIX Base Case	Energy Conservation Strategies
	> GL Lobby – LEDs, Daylight sensors and motion sensors > Fire Stairs – LEDs, Time clock and motion sensors > L1-L7 Hallways/Lobbies – LEDs, Time clock and motion sensors > L1-L7 Hallways/Lobbies Breezeway– LEDs, Time clock and motion sensors > Lift bank– LEDs, Connected to lift call button
Vertical Transport	> Permanent magnet synchronous motor (PMSM) and regenerative drive. > >=1001 kg but <=1500 kg
Swimming Pool and Spa	> No Pool or spa
Photovoltaic (PV) System	> 30 kW peak array
Building Management System	> No
Drying Line	> No common area clothes drying line will be installed
BASIX Energy Target	**60%**
BASIX Energy Score	**67%**

3. Thermal Performance & Material Index

This section outlines the thermal performance modelling and associated material selections used in the BASIX assessment. The thermal performance has been assessed using NatHERS accredited software, considering project-specific building fabric, glazing, ventilation, and operational conditions to meet BASIX energy and comfort requirements.

3.1.1 National House Energy Rating Scheme (NatHERS) Assessment

Thermal Comfort for each dwelling has been assessed out in accordance with the BASIX Thermal Comfort Protocol as defined by the Department of Planning Industry and Environment.

Thermal comfort levels for all proposed dwellings (Class 2) have been assessed using the HERO V4.1 (Thermal modelling software). This approach has been approved by the National House Energy Rating Scheme (NatHERS) and aims to predict annual heating and cooling loads of each dwelling.

To satisfy the BASIX thermal comfort requirements, the following objectives must be achieved:

- The individual dwelling to achieve a minimum NatHERS energy rating of not less than 6 stars, with heating and cooling loads not exceeding the limits specified under the BASIX thermal comfort requirements.
- The development as a whole to achieve an average energy rating of not less than 7 stars, ensuring that the combined heating and cooling loads across all dwellings remain within the average limits outlined by the BASIX scheme.

These requirements have been provided below:

Table 4: Thermal Comfort Targets

Targets	Max. Heating Load ($MJ/m^2.yr$)	Max. Cooling Load ($MJ/m^2.yr$)	Total Load ($MJ/m^2.yr$)
Individual Dwelling Loads (Class 2)	34.4	21.4	38.0
Total Average Dwelling Loads (Class 2)	28.1	20.0	30.0

3.1.2 Material Index

In response to the updated NSW Sustainable Buildings SEPP (effective October 2023), BASIX has introduced a new Material Index to quantify the embodied greenhouse gas (GHG) emissions of construction materials at the Development Application (DA) stage. This assessment focuses on Cradle-to-Gate emissions (Stages A1–A3), which include the extraction, processing, and manufacturing of materials, but exclude transport, construction activities, and site-specific emissions.

The Material Index simplifies reporting by using generic material types and standard construction forms for four major building components:

- Floors
- Walls
- Roof/Ceiling
- Windows

These elements typically account for more than 75% of a building's total embodied emissions.

It is important to note that no compliance target currently applies to the Material Index. The data collected will support future policy development and may inform future targets as part of the broader BASIX framework.

3.2 Materials Used for Thermal Modelling & BASIX Material Index

Thermal comfort modelling has been carried out in accordance with the requirements outlined in *section 3.1.1* to demonstrate compliance with BASIX thermal performance criteria. This assessment incorporates project-specific building envelope specifications, with the resulting average heating and cooling loads for the proposed development summarised in **Appendix A.**

The construction materials assumed in the modelling for key building elements such as floors, walls, roofs and ceilings, and windows have been documented and reported in the BASIX Material Index, supporting both thermal performance and embodied emissions reporting.

Table 5: Fabrics Construction Details

Building Element	Material & Detail
Construction & shading	> As indicated on the architectural drawings.
Floors	> 250mm Concrete slab on ground, no insulation > 250mm Suspended concrete slab adjacent to external air with R2.0 batt insulation. > 250mm Suspended concrete slab adjacent to carpark with R2.0 batt insulation > 250mm Suspended concrete slab adjacent to neighbour and corridor, no insulation.
Floor Coverings	> Vinyl flooring in Bedrooms and Kitchen/Living spaces. > 8mm Tiles for Laundry/Toilets.
Ceiling and Roof	**N – 709:** > 300mm suspended concrete slabs with R6.0 insulation respectively, adjacent external. **Level 6 and 7:** > 300mm suspended concrete slabs with R5.0 insulation respectively, adjacent external.

Building Element	Material & Detail
	All other levels: > 250mm suspended concrete slabs with R2.5 insulation respectively, adjacent external. > Plasterboard ceilings adjacent to neighbour, corridor, and internal respectively.
External Walls	> 180mm precast concrete walls with R2.5 fibreglass insulation (steel framing) and internal plasterboard > 20mm Brick Snaps + 180mm precast concrete walls with R2.5 fibreglass insulation (steel framing) and internal plasterboard
Internal Walls	**Internal Wall - within dwellings:** > Plasterboard on studs, no insulation. **Between adjacent dwellings:** > Plasterboards on studs, no insulation. **Internal Wall - Between dwellings and corridors:** > Hebel external cladding stud wall with plasterboard internally, with R2.0 batt insulation. **Internal Wall – Between dwellings and service area:** > Plasterboard on studs, with R2.0 batt insulation.
Glazing	**N – 709:** > Awnings: U-value ≤ 2.91 W/m^{2}k, SHGC 0.44 (±5%) > Fixed windows and Sliding Doors: U-value ≤ 2.90 W/m^{2}k, SHGC 0.51 (±5%) **All Other Units:** > Awnings: U-value ≤ 3.60 W/m^{2}k, SHGC 0.47 (±5%) > Fixed windows and Sliding Doors: U-value ≤ 3.60 W/m^{2}k, SHGC 0.54 (±5%)

Please note: glazing values quoted above are based on AFRC figures and are values for the total glazing system including frame.

For all apartments, the following assumptions have been made:

> All windows and doors are weather stripped

> Window openings have been calculated as per the BASIX protocol based on input from the architectural team for fixed windows, awnings windows and sliding doors.

Appendix A
NatHERS Certificate

Nationwide House Energy Rating Scheme®
Class 2 Summary
NatHERS® Certificate No. #HR-IS2EGQ-01

Generated on 03 Nov 2025 using Hero 4.1

Property

Address	270-278 Burwood Road & 54 Lakemba Street, Belmore, NSW, 2192
Lot/DP	
NatHERS climate zone	56 - Mascot AMO

Accredited assessor

Name	Khyati Saxena
Business name	ADP Consulting
Email	k.saxena@adpconsulting.com.au
Phone	+61 405886583
Accreditation No.	10191
Assessor Accrediting Organisation	HERA

Verification

To verify this certificate, scan the QR code or visit http://www.hero-software.com.au/pdf/HR-IS2EGQ-01. When using either link, ensure you are visiting http://www.hero-software.com.au

National Construction Code (NCC) requirements

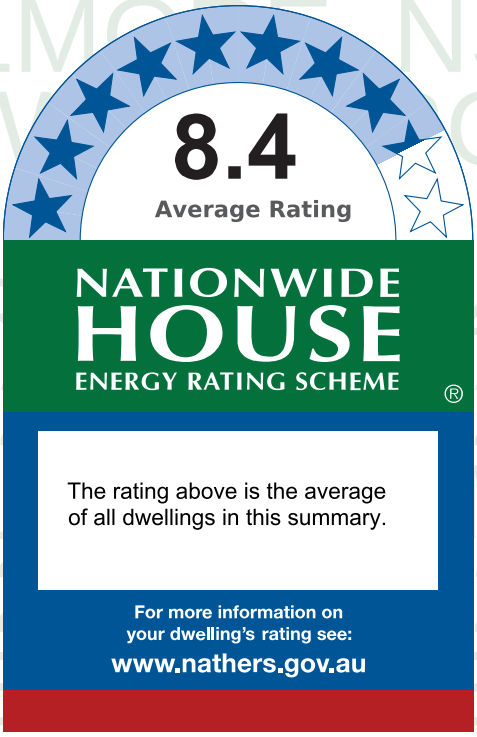
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Thermal performance Star rating



NCC heating and cooling maximum loads MJ/m².yr

Limits taken from ABCB Standard 2022

	Heating	Cooling
Average load	10.2	6.9
Maximum load	29.8	16.7
Average limit	28.1	20.0
Maximum limit	34.4	21.4

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate or not completed for all dwellings.

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m².yr)	Cooling load (load limit) (MJ/m².yr)	Total load (MJ/m².yr)	Star Rating	Whole of Home Rating
HR-L5GOHB-01	G05	0.6 (33)	3.5 (20)	4.0	10.0	n/a
HR-N8V6FB-01	N-101	6.1 (33)	7.6 (20)	13.8	8.8	n/a
HR-CH791B-01	N-102	1.4 (33)	6.6 (20)	8.0	9.7	n/a

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m².yr)	Cooling load (load limit) (MJ/m².yr)	Total load (MJ/m².yr)	Star Rating	Whole of Home Rating
HR-B8PFD2-01	N-103	2.8 (33)	6.1 (20)	8.9	9.5	n/a
HR-GC5S91-01	N-104	8.7 (33)	7.3 (20)	15.9	8.5	n/a
HR-PE17QW-01	N-105	2.8 (33)	6.7 (20)	9.5	9.4	n/a
HR-8BJ5BA-01	N-106	0.6 (33)	8.9 (20)	9.4	9.4	n/a
HR-SHFA7T-01	N-107	0.5 (33)	3.2 (20)	3.7	10.0	n/a
HR-Q7CZU7-01	N-108	11.0 (33)	4.6 (20)	15.6	8.5	n/a
HR-81M9H9-01	N-109	16.6 (33)	3.1 (20)	19.7	8.1	n/a
HR-7GM8TT-01	N-110	18.2 (33)	4.7 (20)	22.8	7.8	n/a
HR-061A3G-01	N-201	9.2 (33)	8.2 (20)	17.4	8.4	n/a
HR-0Z2X5F-01	N-202	3.5 (33)	7.8 (20)	11.3	9.1	n/a
HR-AVMVRY-01	N-203	2.7 (33)	6.8 (20)	9.5	9.4	n/a
HR-QBH8TD-01	N-204	8.8 (33)	7.8 (20)	16.5	8.4	n/a
HR-AG1FRI-01	N-205	4.0 (33)	4.4 (20)	8.4	9.6	n/a
HR-EHFEPC-01	N-206	0.7 (33)	9.2 (20)	9.9	9.4	n/a
HR-EW1S8L-01	N-207	0.5 (33)	4.4 (20)	4.9	10.0	n/a
HR-NZHCFC-01	N-208	4.2 (33)	16.7 (20)	20.9	8.0	n/a
HR-P3A552-01	N-209	21.3 (33)	14.9 (20)	36.2	6.2	n/a
HR-0JI9O6-01	N-210	15.8 (33)	9.3 (20)	25.1	7.4	n/a
HR-02SLCA-01	N-211	10.3 (33)	3.0 (20)	13.3	8.8	n/a
HR-I90B0O-01	N-212	18.9 (33)	4.8 (20)	23.7	7.7	n/a
HR-V5XX37-01	N-301	10.4 (34)	7.4 (21)	17.8	8.3	n/a
HR-GKJ989-01	N-302	3.9 (34)	7.8 (21)	11.7	9.0	n/a
HR-1UY6EH-01	N-303	3.1 (34)	6.4 (21)	9.6	9.4	n/a
HR-WUXOL6-01	N-304	9.6 (34)	7.5 (21)	17.2	8.4	n/a
HR-NAS6GS-01	N-305	5.2 (34)	4.7 (21)	9.9	9.4	n/a
HR-H1EQ4E-01	N-306	0.6 (34)	7.5 (21)	8.1	9.7	n/a
HR-X95FRK-01	N-307	0.4 (34)	5.3 (21)	5.7	10.0	n/a
HR-KEP3L7-01	N-308	2.5 (34)	10.3 (21)	12.8	8.9	n/a

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m².yr)	Cooling load (load limit) (MJ/m².yr)	Total load (MJ/m².yr)	Star Rating	Whole of Home Rating
HR-DJZW3B-01	N-309	19.3 (34)	7.7 (21)	27.0	7.3	n/a
HR-Q83A94-01	N-310	15.2 (34)	5.9 (21)	21.1	7.9	n/a
HR-0M9ZU5-01	N-311	12.4 (34)	4.0 (21)	16.5	8.4	n/a
HR-DNIH4N-01	N-312	20.8 (34)	4.5 (21)	25.3	7.4	n/a
HR-5GG9F5-01	N-401	10.5 (34)	7.3 (21)	17.8	8.3	n/a
HR-ASW0V3-01	N-402	4.3 (34)	8.0 (21)	12.3	8.9	n/a
HR-JNPAA6-01	N-403	3.5 (34)	6.6 (21)	10.2	9.3	n/a
HR-VWIW2Y-01	N-404	11.6 (34)	7.6 (21)	19.2	8.2	n/a
HR-HQTPR8-01	N-405	6.0 (34)	4.5 (21)	10.5	9.3	n/a
HR-S6SBZR-01	N-406	0.6 (34)	6.9 (21)	7.6	9.7	n/a
HR-20O7N9-01	N-407	0.6 (34)	5.3 (21)	5.9	10.0	n/a
HR-ZZN9GN-01	N-408	2.7 (34)	9.9 (21)	12.6	8.9	n/a
HR-8XIO0H-01	N-409	20.6 (34)	7.3 (21)	27.9	7.2	n/a
HR-GGCOT7-01	N-410	16.3 (34)	6.3 (21)	22.6	7.8	n/a
HR-CRH6B1-01	N-411	8.3 (34)	2.6 (21)	11.0	9.2	n/a
HR-L358EG-01	N-412	22.9 (34)	4.4 (21)	27.4	7.3	n/a
HR-H8SRR4-01	N-501	11.5 (34)	7.2 (21)	18.7	8.2	n/a
HR-BBZ4GO-01	N-502	4.9 (34)	7.8 (21)	12.7	8.9	n/a
HR-C00RGS-01	N-503	3.7 (34)	6.7 (21)	10.5	9.3	n/a
HR-SQGZMC-01	N-504	11.5 (34)	7.6 (21)	19.0	8.2	n/a
HR-VDI4YF-01	N-505	6.1 (34)	4.6 (21)	10.7	9.2	n/a
HR-IDUOPB-01	N-506	0.7 (34)	7.3 (21)	8.0	9.7	n/a
HR-ZOO1GB-01	N-507	0.7 (34)	5.1 (21)	5.8	10.0	n/a
HR-PR6N3H-01	N-508	2.9 (34)	9.5 (21)	12.4	8.9	n/a
HR-HGWTAI-01	N-509	21.0 (34)	6.6 (21)	27.7	7.2	n/a
HR-FG5E4R-01	N-510	16.8 (34)	5.7 (21)	22.5	7.8	n/a
HR-C9GN6F-01	N-511	8.7 (34)	2.6 (21)	11.2	9.1	n/a

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m².yr)	Cooling load (load limit) (MJ/m².yr)	Total load (MJ/m².yr)	Star Rating	Whole of Home Rating
HR-E481M0-01	N-512	23.6 (34)	4.5 (21)	28.1	7.2	n/a
HR-CTUY6J-01	N-601	12.0 (34)	6.7 (21)	18.6	8.2	n/a
HR-0MDKZJ-01	N-602	5.2 (34)	7.6 (21)	12.8	8.9	n/a
HR-QEQXVJ-01	N-603	3.9 (34)	6.5 (21)	10.4	9.3	n/a
HR-1WZ005-01	N-604	12.2 (34)	7.1 (21)	19.3	8.2	n/a
HR-NDK7DZ-01	N-605	6.4 (34)	4.2 (21)	10.5	9.2	n/a
HR-0GEDOQ-01	N-606	0.7 (34)	7.2 (21)	7.9	9.7	n/a
HR-NRVK72-01	N-607	0.8 (34)	5.2 (21)	6.0	10.0	n/a
HR-GZ2X8X-01	N-608	3.0 (34)	9.5 (21)	12.5	8.9	n/a
HR-C8CCR4-01	N-609	22.3 (34)	9.9 (21)	32.2	6.7	n/a
HR-PUCNJW-01	N-610	24.0 (34)	8.2 (21)	32.1	6.7	n/a
HR-AURLZ2-01	N-611	18.4 (34)	4.0 (21)	22.4	7.8	n/a
HR-G1OO2G-01	N-612	29.8 (34)	7.9 (21)	37.7	6.0	n/a
HR-YYFB33-01	N-701	15.3 (34)	9.2 (21)	24.5	7.6	n/a
HR-HUGUYZ-01	N-702	9.0 (34)	9.9 (21)	18.9	8.2	n/a
HR-L7C03K-01	N-703	7.9 (34)	8.1 (21)	16.0	8.4	n/a
HR-NCJE1X-01	N-704	16.3 (34)	10.1 (21)	26.4	7.4	n/a
HR-915Y5K-01	N-705	11.6 (34)	7.0 (21)	18.5	8.2	n/a
HR-LPO83W-01	N-706	3.0 (34)	9.1 (21)	12.0	8.9	n/a
HR-STFEBE-01	N-707	3.6 (34)	8.1 (21)	11.7	9.1	n/a
HR-1QIFBS-01	N-708	8.1 (34)	14.4 (21)	22.5	7.8	n/a
HR-X7NOZK-01	N-709	22.4 (34)	14.3 (21)	36.7	6.2	n/a
HR-8KZ4TX-01	N-G01	7.2 (33)	7.1 (20)	14.3	8.7	n/a
HR-CIA5AV-01	N-G02	8.2 (33)	11.1 (20)	19.3	8.2	n/a
HR-1QM5NG-01	N-G03	9.4 (33)	7.3 (20)	16.7	8.4	n/a
HR-2Q15AX-01	N-G04	1.1 (33)	6.6 (20)	7.6	9.7	n/a
HR-UNN9OZ-01	N-G06	10.1 (33)	6.5 (20)	16.6	8.4	n/a

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m².yr)	Cooling load (load limit) (MJ/m².yr)	Total load (MJ/m².yr)	Star Rating	Whole of Home Rating
HR-U4WZBB-01	N-G07	21.6 (33)	6.5 (20)	28.0	7.2	n/a
HR-ZQEL1B-01	N-G08	15.9 (33)	7.0 (20)	22.9	7.8	n/a
HR-I1T8NF-01	S-111	17.5 (33)	7.1 (20)	24.6	7.5	n/a
HR-D0ZD58-01	S-112	9.5 (33)	3.3 (20)	12.9	8.9	n/a
HR-H3YON4-01	S-113	12.0 (33)	3.1 (20)	15.1	8.6	n/a
HR-OSI9M9-01	S-114	18.0 (33)	3.9 (20)	21.9	7.9	n/a
HR-W5FHEE-01	S-115	9.0 (33)	6.6 (20)	15.6	8.5	n/a
HR-8DXIRO-01	S-116	12.0 (33)	5.7 (20)	17.6	8.3	n/a
HR-FNBYSO-01	S-117	9.3 (33)	5.7 (20)	15.0	8.6	n/a
HR-MLI47F-01	S-118	2.2 (33)	6.8 (20)	9.0	9.4	n/a
HR-GZAGPK-01	S-213	14.0 (33)	11.0 (20)	24.9	7.5	n/a
HR-N0N7T7-01	S-214	10.7 (33)	3.8 (20)	14.5	8.7	n/a
HR-1R7KRR-01	S-215	14.1 (33)	3.5 (20)	17.7	8.3	n/a
HR-DYTJ58-01	S-216	16.6 (33)	4.0 (20)	20.6	8.0	n/a
HR-07VENY-01	S-217	9.0 (33)	7.3 (20)	16.3	8.4	n/a
HR-CCUVFD-01	S-218	6.9 (33)	8.4 (20)	15.3	8.6	n/a
HR-VN6V0S-01	S-219	2.7 (33)	7.8 (20)	10.5	9.2	n/a
HR-UN5Q6K-01	S-220	2.7 (33)	6.9 (20)	9.6	9.4	n/a
HR-XBAUXA-01	S-313	8.5 (34)	13.4 (21)	21.9	7.9	n/a
HR-XOJX0V-01	S-314	4.5 (34)	5.2 (21)	9.7	9.4	n/a
HR-VS7LYS-01	S-315	14.7 (34)	3.7 (21)	18.4	8.3	n/a
HR-ZIO1U0-01	S-316	4.2 (34)	7.2 (21)	11.5	9.1	n/a
HR-SL3GIU-01	S-317	8.3 (34)	7.4 (21)	15.7	8.5	n/a
HR-X0WSV1-01	S-318	8.6 (34)	8.2 (21)	16.7	8.4	n/a
HR-T8PNQ8-01	S-319	4.7 (34)	7.8 (21)	12.6	8.9	n/a
HR-P9Z4FJ-01	S-320	2.4 (34)	6.9 (21)	9.2	9.4	n/a
HR-TN15UW-01	S-413	22.2 (34)	8.0 (21)	30.1	6.9	n/a
HR-PDVCEP-01	S-414	17.2 (34)	2.8 (21)	20.1	8.1	n/a
HR-63Q7VC-01	S-415	19.1 (34)	2.9 (21)	22.0	7.9	n/a

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m².yr)	Cooling load (load limit) (MJ/m².yr)	Total load (MJ/m².yr)	Star Rating	Whole of Home Rating
HR-YAQKXA-01	S-416	6.9 (34)	6.3 (21)	13.2	8.8	n/a
HR-R40YX0-01	S-417	11.7 (34)	6.7 (21)	18.4	8.3	n/a
HR-3JAV3Z-01	S-418	11.3 (34)	7.4 (21)	18.7	8.2	n/a
HR-KB239O-01	S-419	5.6 (34)	7.3 (21)	12.9	8.9	n/a
HR-R2T4MO-01	S-420	4.2 (34)	5.0 (21)	9.2	9.4	n/a
HR-X3PF5B-01	S-513	18.7 (34)	8.0 (21)	26.8	7.3	n/a
HR-M7D4VQ-01	S-514	17.0 (34)	3.0 (21)	19.9	8.1	n/a
HR-9R6U4V-01	S-515	20.5 (34)	2.8 (21)	23.3	7.7	n/a
HR-TCW5HR-01	S-516	7.3 (34)	6.1 (21)	13.4	8.8	n/a
HR-EGGNSM-01	S-517	11.8 (34)	6.7 (21)	18.4	8.3	n/a
HR-MU96Y9-01	S-518	11.5 (34)	7.3 (21)	18.7	8.2	n/a
HR-334X0Y-01	S-519	7.5 (34)	6.3 (21)	13.8	8.8	n/a
HR-AG40P2-01	S-520	3.8 (34)	4.9 (21)	8.8	9.5	n/a
HR-4NY9MN-01	S-613	11.6 (34)	8.1 (21)	19.7	8.1	n/a
HR-HWUYK4-01	S-614	16.9 (34)	2.8 (21)	19.7	8.1	n/a
HR-3VFX57-01	S-615	29.0 (34)	4.8 (21)	33.9	6.5	n/a
HR-5RBQG3-01	S-616	12.8 (34)	8.3 (21)	21.0	7.9	n/a
HR-8P20R1-01	S-617	11.8 (34)	6.7 (21)	18.5	8.2	n/a
HR-CVWBMR-01	S-618	11.5 (34)	7.3 (21)	18.8	8.2	n/a
HR-E2KC21-01	S-619	7.7 (34)	6.0 (21)	13.7	8.8	n/a
HR-LWRJ3W-01	S-620	2.8 (34)	4.9 (21)	7.7	9.7	n/a
HR-WTBE41-01	S-710	18.0 (34)	12.1 (21)	30.1	6.9	n/a
HR-KLEMW5-01	S-711	27.3 (34)	5.5 (21)	32.8	6.6	n/a
HR-J3CTAP-01	S-712	20.8 (34)	7.7 (21)	28.5	7.2	n/a
HR-UTD0VN-01	S-713	13.3 (34)	11.0 (21)	24.3	7.6	n/a
HR-1WMYVA-01	S-714	14.6 (34)	8.7 (21)	23.4	7.7	n/a
HR-ZRMHGE-01	S-715	6.2 (34)	8.1 (21)	14.3	8.7	n/a
HR-NZPMQQ-01	S-G09	18.3 (33)	10.2 (20)	28.5	7.2	n/a
HR-UHFV7B-01	S-G10	15.7 (33)	10.9 (20)	26.7	7.3	n/a

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m².yr)	Cooling load (load limit) (MJ/m².yr)	Total load (MJ/m².yr)	Star Rating	Whole of Home Rating
HR-WM2CHO-01	S-G11	17.9 (33)	6.4 (20)	24.3	7.6	n/a
HR-X696X5-01	S-G12	7.4 (33)	5.7 (20)	13.0	8.9	n/a
Averages	145x (Total)	10.2	6.9	17.1	8.4	n/a
Maximum Loads and Minimum Ratings		29.8	16.7	37.7	6.0	n/a

Explanatory notes

About the ratings

The thermal performance star rating in this Certificate is the average rating of all NCC Class 2 dwellings in an apartment block. The Whole of Home performance rating in this Certificate is the lowest rating for the apartment block. Individual unit ratings are listed in the *'Summary of all dwellings'* section of this Certificate.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the energy loads and societal cost. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy production and storage to estimate the homes societal cost.
For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

Accredited Assessors

For high quality NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Licensed assessors in the Australian Capital Territory (ACT) can produce assessments for regulatory purposes only, using endorsed software, as listed on the ACT licensing register.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in certificates is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy use, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

Appendix B
Stamped Drawings

Project BASIX Water, Energy, Thermal Performance and Materials scores:

Table 1: BASIX Target Scores

BASIX	Target	Score Achieved	Compliance
Water	40%	**41%**	**Pass**
Energy	60%	**67%**	**Pass**
Thermal Performance	Pass	**Pass**	**Pass**
Materials	N/A (Reporting only)	**100%**	**N/A** (Reporting only)

Table 2: Water Commitments

BASIX Base Case	Water Conservation Strategies
Common Areas	**Fixtures and fittings[1] to be included:** > 4-star showerheads (>6 but ≤ 7.5 L/min) > 5-star kitchen and bathroom taps > 4-star flush toilets
Common Landscape Areas	> Area of lawn: 117 m^2 > Area of vegetated garden excluding lawn: 1248 m^2 > Area of low water-use species: 955.5 m^2
Individual Landscape Areas	> Nil
Individual Dwellings	**Fixtures and fittings to be included:** > 4-star showerheads (>4.5 but ≤ 6 L/min) > 5-star kitchen and bathroom taps > 4-star flush toilets
Appliances	**Appliances[2] to be included (In apartments):** > Dishwasher: N/A, not provided > Clothes Washer: N/A, not provided **Appliances to be included (In common area):** > N/A; no common laundry facility
Alternative Water Source	> 10kL Rainwater Tank > Rainwater used to irrigate common landscape
Car washing bays	> N/A; no car washing bay
Fire Sprinkler Systems	> No closed loop Fire Sprinkler System
Spa	> N/A; no spa facility
BASIX Water Target	**40%**
BASIX Water Score	**41%**

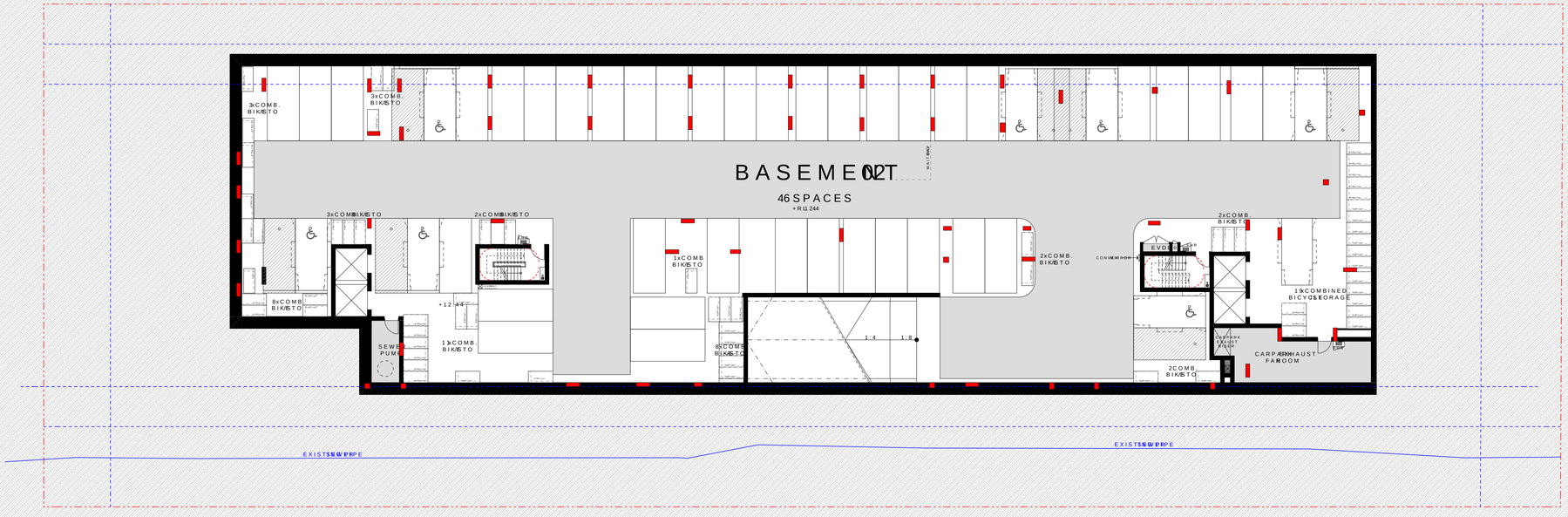
Table 3: Energy Commitments

BASIX Base Case	Energy Conservation Strategies
Individual Dwellings	**Lighting and HVAC:** > Dedicated LED light fittings located throughout each dwelling[3] (All downlights to be sealed) > All kitchen, bathroom, and laundry exhausts to have individual fans ducted to the facade or roof with the following efficiency measures: – Kitchen: Manual on/off switch – Laundry: Interlocked to light – Bathroom: Interlocked to light and to run on 15-minute timer **Heating and cooling:** > 1-phase air conditioning, non-ducted system, EER 3.5-4.0 > Air-conditioning units in living rooms only > Ceiling fans in all living rooms and bedrooms
Central systems	**Central hot water system:** > Central hot water system: electric heat pump (air sourced) – 3.0< COP <=3.5 – R0.6 (~25mm) insulation to external and internal piping in building
Appliances (For Individual Dwellings)	**Efficient appliances[4] for each apartment as follows:** > Induction Cooktop & Electric Oven > Dishwasher: N/A, not provided > Clothes Washer: N/A, not provided
Common Areas	**Ventilation systems and efficiency measures as follows:** > Carpark – Ventilation (Exhaust/Supply); Carbon Monoxide +VSD fan > B2 Sewer Pump Room – Ventilation (Supply only); Continuous > B2 Carpark exhaust Fan Room - Ventilation (Supply only); Continuous > B1 Waste Room - Ventilation (Exhaust only); Continuous > B1 Bin Holding Area - Ventilation (Exhaust only); Continuous > B1 Rainwater Pump filtration Room - Ventilation (Exhaust only); Continuous > B1 Main Switch Room - Ventilation (Supply only); Continuous > B1 Main Comms Room - Ventilation (Supply only); Continuous > B1 Car Park supply Fan Room - Ventilation (Supply only); Continuous > B1 Cold water Tank Room - Ventilation (Exhaust only); Continuous > B1 Fire Pump Room - Ventilation (Supply and Exhaust only); Continuous > GF Waste Holding Area - Ventilation (Exhaust only); Continuous > GF BWR - Ventilation (Exhaust only); Continuous > GF Bike Shed - No mechanical ventilation > GL Communal Room - Air-conditioning; Time Clock or BMS Controlled > GL Meeting Room - Air-conditioning; Time Clock or BMS Controlled > GL W/C - Ventilation (Exhaust only); Time Clock or BMS Controlled > GL Lobby – Ventilation (Supply only), Time Clock or BMS Controlled > Fire Stairs – No mechanical ventilation > L1-L7 Hallways/Lobbies – Ventilation (Supply only); Continuous > L1-L7 Hallways/Lobbies Breezeway– No mechanical ventilation **Lighting systems and efficiency measures as follows:** > Carpark – LEDs, Time clock and motion sensors > B2 Sewer Pump Room – LEDs, Manual on / manual off > B2 Carpark Exhaust Fan Room – LEDs, Manual on / manual off > B1 Waste Room – LEDs, Time clock and motion sensors > B1 Bin Holding Area – LEDs, Time clock and motion sensors > B1 Rainwater Pump filtration Room - LEDs, Manual on / manual off > B1 Main Switch Room - LEDs, Manual on / manual off > B1 Main Comms Room - LEDs, Manual on / manual off > B1 Car Park supply Fan Room - LEDs, Manual on / manual off > B1 Cold water Tank Room - LEDs, Manual on / manual off > B1 Fire Pump Room - LEDs, Manual on / manual off > GF Waste Holding Area – LEDs, Time clock and motion sensors > GF BWR – LEDs, Time clock and motion sensors > GF Bike Shed – LEDs, Time clock and motion sensors > GL Communal Room – LEDs, Daylight sensor and motion sensors > GL Meeting Room – LEDs, Daylight sensor and motion sensors > GL W/C – LEDs, Time clock and motion sensors > GL Lobby – LEDs, Daylight sensors and motion sensors > Fire Stairs – LEDs, Time clock and motion sensors > L1-L7 Hallways/Lobbies – LEDs, Time clock and motion sensors > L1-L7 Hallways/Lobbies Breezeway– LEDs, Time clock and motion sensors > Lift bank– LEDs, Connected to lift call button
Vertical Transport	> Permanent magnet synchronous motor (PMSM) and regenerative drive. > >=1001 kg but <=1500 kg
Swimming Pool and Spa	> No Pool or spa
Photovoltaic (PV) System	> 30 kW peak array
Building Management System	> No
Drying Line	> No common area clothes drying line will be installed
BASIX Energy Target	**60%**
BASIX Energy Score	**67%**

Table 5: Fabrics Construction Details

Building Element	Material & Detail
Construction & shading	> As indicated on the architectural drawings.
Floors	> 250mm Concrete slab on ground, no insulation > 250mm Suspended concrete slab adjacent to external air with R2.0 batt insulation. > 250mm Suspended concrete slab adjacent to carpark with R2.0 batt insulation > 250mm Suspended concrete slab adjacent to neighbour and corridor, no insulation.
Floor Coverings	> Vinyl flooring in Bedrooms and Kitchen/Living spaces. > 8mm Tiles for Laundry/Toilets.
Ceiling and Roof	**N – 709:** > 300mm suspended concrete slabs with R6.0 insulation respectively, adjacent external. **Level 6 and 7:** > 300mm suspended concrete slabs with R5.0 insulation respectively, adjacent external. **All other levels:** > 250mm suspended concrete slabs with R2.5 insulation respectively, adjacent external. > Plasterboard ceilings adjacent to neighbour, corridor, and internal respectively.
External Walls	> 180mm precast concrete walls with R2.5 fibreglass insulation (steel framing) and internal plasterboard > 20mm Brick Snaps + 180mm precast concrete walls with R2.5 fibreglass insulation (steel framing) and internal plasterboard
Internal Walls	**Internal Wall - within dwellings:** > Plasterboard on studs, no insulation. **Between adjacent dwellings:** > Plasterboards on studs, no insulation. **Internal Wall - Between dwellings and corridors:** > Hebel external cladding stud wall with plasterboard internally, with R2.0 batt insulation. **Internal Wall – Between dwellings and service area:** > Plasterboard on studs, with R2.0 batt insulation.
Glazing	**N – 709:** > Awnings: U-value ≤ 2.91 W/m^2k, SHGC 0.44 (±5%) > Fixed windows and Sliding Doors: U-value ≤ 2.90 W/m^2k, SHGC 0.51 (±5%) **All Other Units:** > Awnings: U-value ≤ 3.60 W/m^2k, SHGC 0.47 (±5%) > Fixed windows and Sliding Doors: U-value ≤ 3.60 W/m^2k, SHGC 0.54 (±5%)

Project Name	54 Lakemba Street Belmore
Project Number	13921
Project Address	270-278 Burwood Road Belmore NSW 2192



Certificate No. #HR-IS2EGQ-01

Scan QR code or follow website link for rating details.

Assessor name	Khyati Saxena
Accreditation No.	HERA 10191
Property Address	270-278 Burwood Road & 54 Lakemba Street, Belmore, NSW, 2192

http://www.hero-software.com.au/pdf/HR-IS2EGQ-01

- All works to be in accordance with authority & statutory approvals.
- Refer to site survey for all information relating to existing site conditions.
- All Boundary information to be confirmed by registered surveyor before commencing works on site.
- Refer to Arborist Report and Landscape Documentation for all information relating to trees and their retention/removal, and all landscape works.
- Drawings to be read in conjunction with all Specifications and Schedules; all specialist consultant documentation; BASIX, NatHERS, Section J Certificates.
- Minor changes to building form & configuration may be required after Development Consent.
- Do not scale from drawing; figured dimensions only to be used.
- Building Contractor to verify all dimensions before commencing work.

Rev	Date	By	Chk	Description
A	29/09/2025	DK, AL	DF	SSDA Submission

Auckland
Brisbane
Ho Chi Minh
Melbourne
Perth
Sydney

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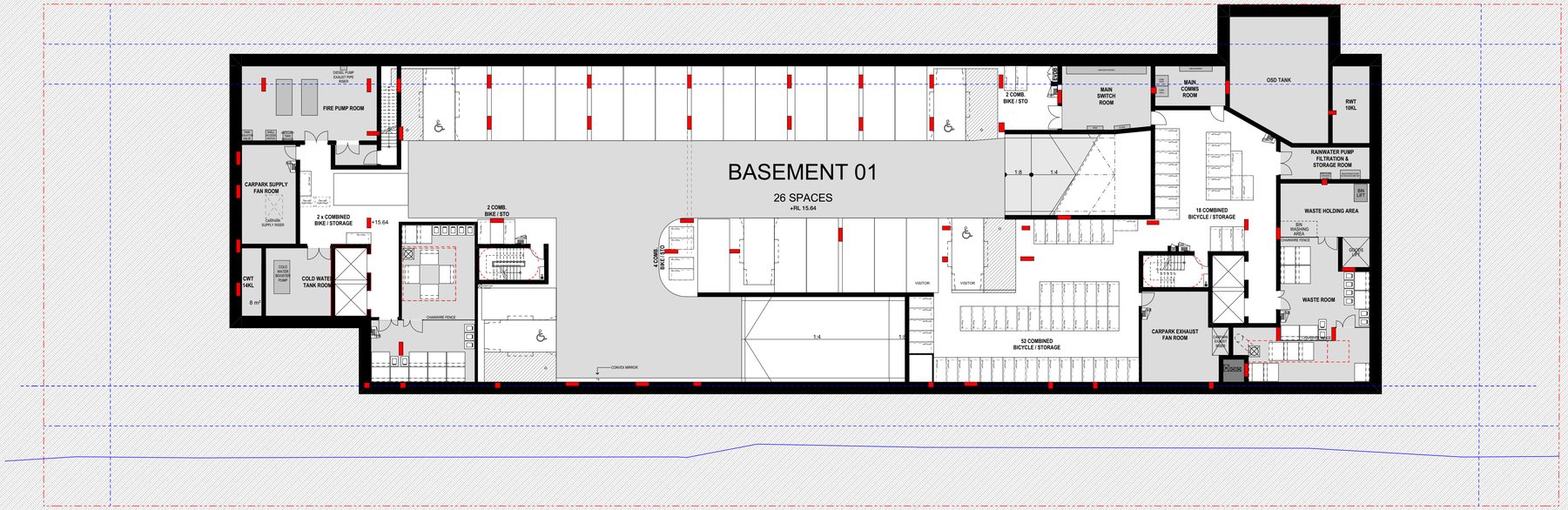
Project Name	54 Lakemba Street Belmore
Project Number	13921
Project Address	270-278 Burwood Road Belmore NSW 2192
Country	Australia

Drawing Name
Overall - Basement 2

Drawing Scale 1:200 @ A1

Drawing No. DA200

Revision A



Certificate No. #HR-IS2EGQ-01

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Accreditation No.	HERA 10191
Property Address	270-278 Burwood Road & 54 Lakemba Street, Belmore, NSW, 2192

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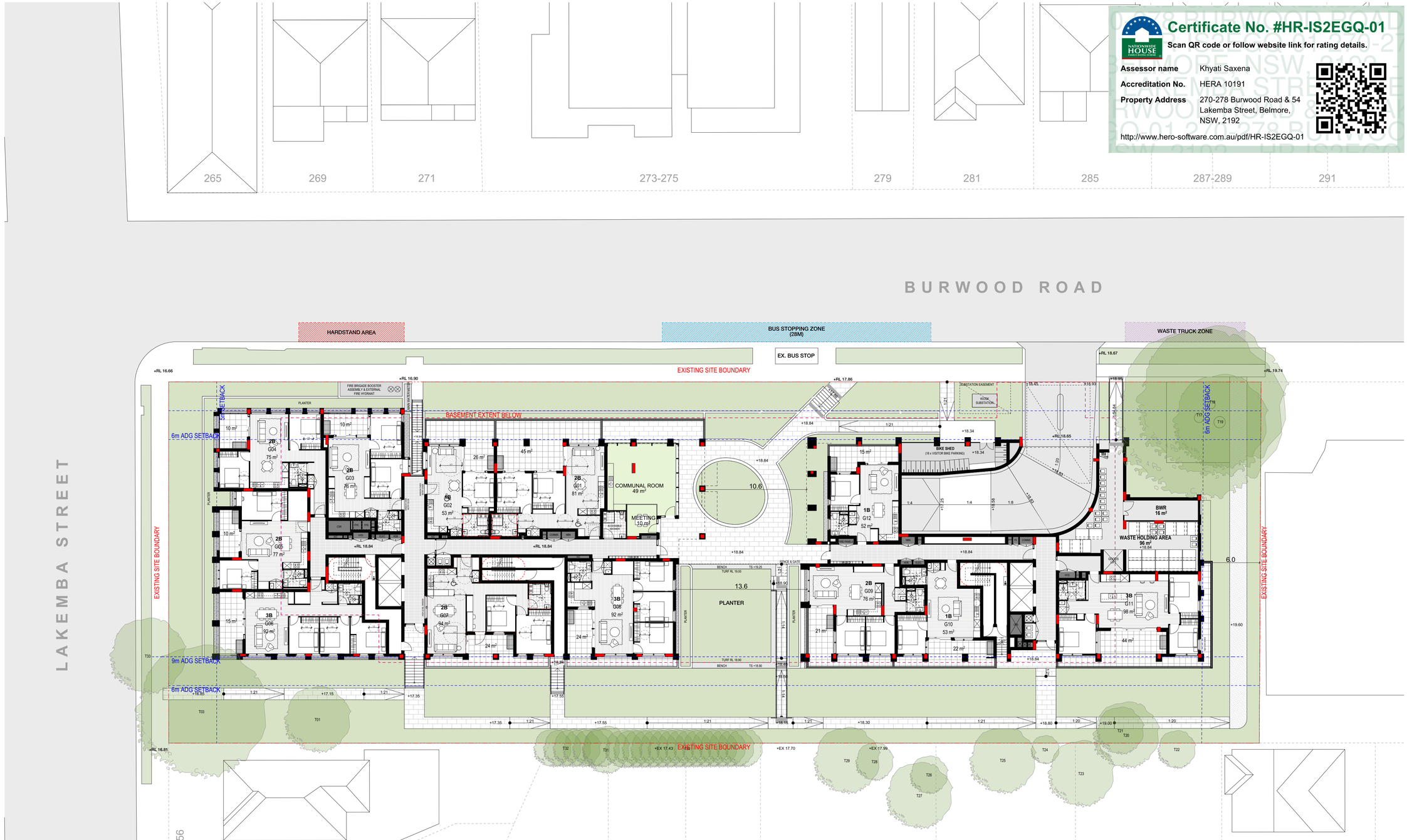
Project Name	54 Lakemba Street Belmore
Project Number	13921
Project Address	270-278 Burwood Road Belmore NSW 2192
Country	Australia

Drawing Name
Overall - Basement 1

Drawing Scale 1:200 @ A1

Drawing No. DA201

Revision A



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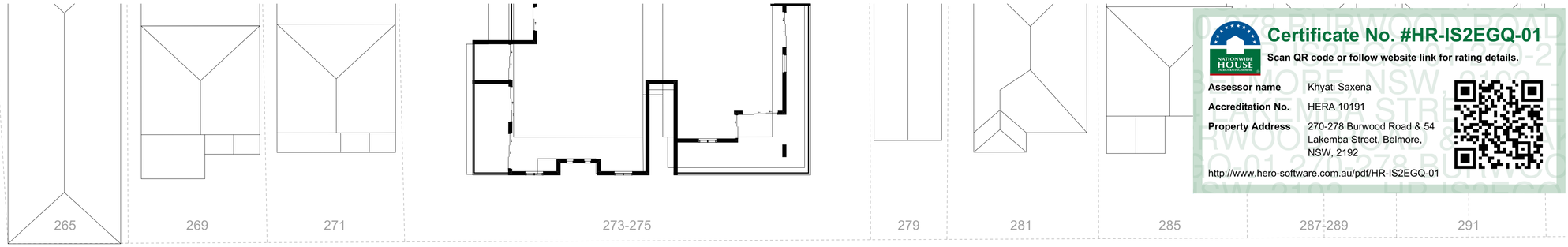
Project Number	13921
Project Address	270-278 Burwood Road Belmore NSW 2192
Country	Australia

Drawing Name
Overall - Ground Floor

Drawing Scale	1:200 @ A1
Drawing No.	DA202
Revision	A



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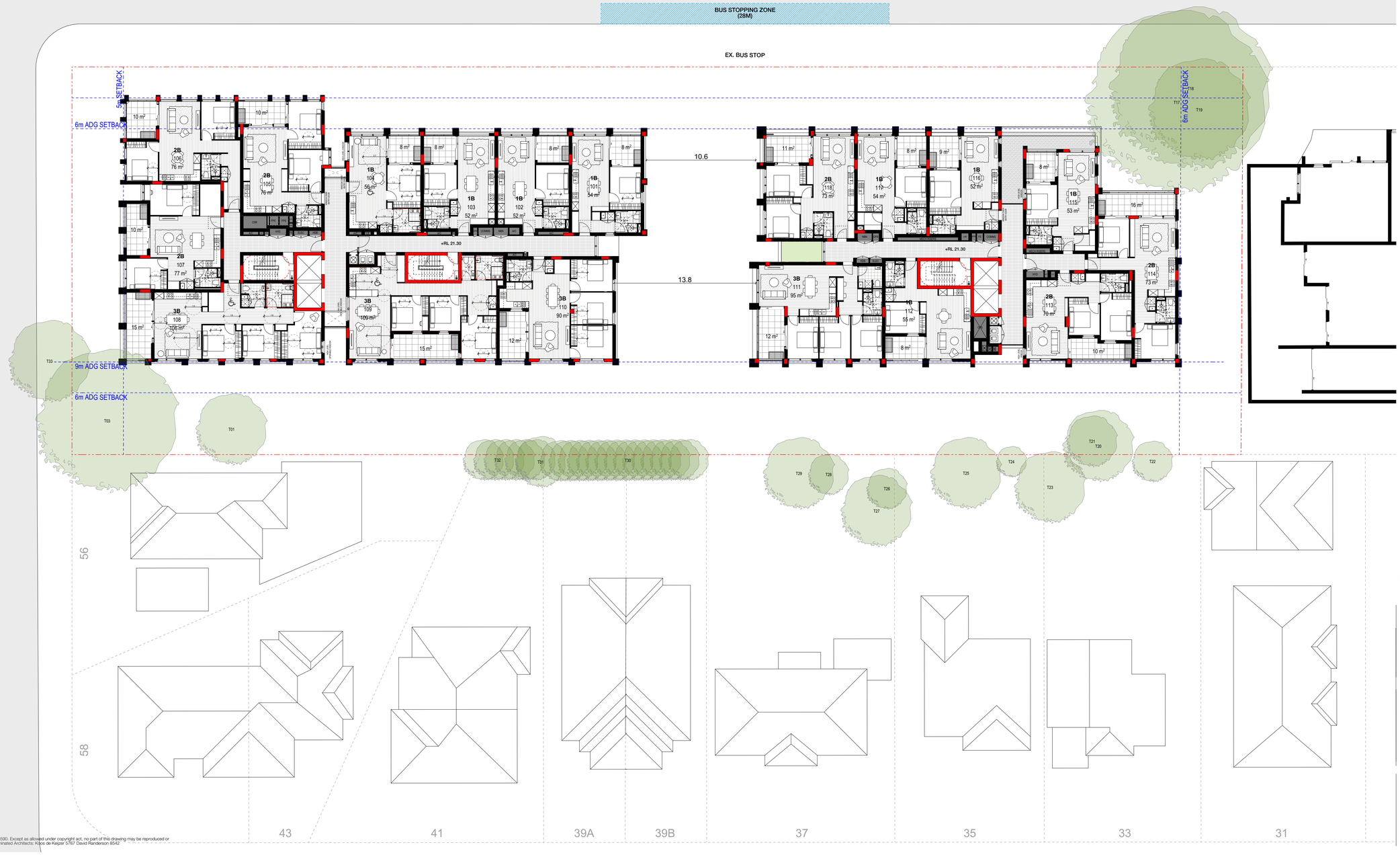

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Project Address	270-278 Burwood Road Belmore NSW 2192
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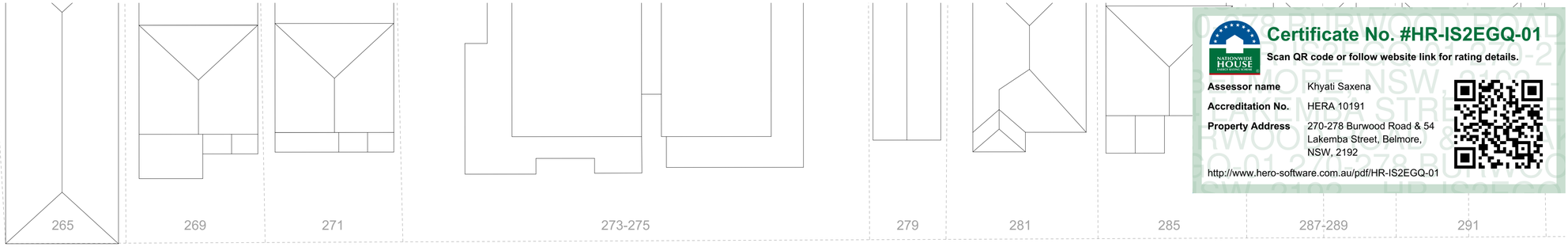
Drawing Name
Overall - Level 1

Drawing Scale 1:200 @ A1

Drawing No. **DA203** Revision **A**



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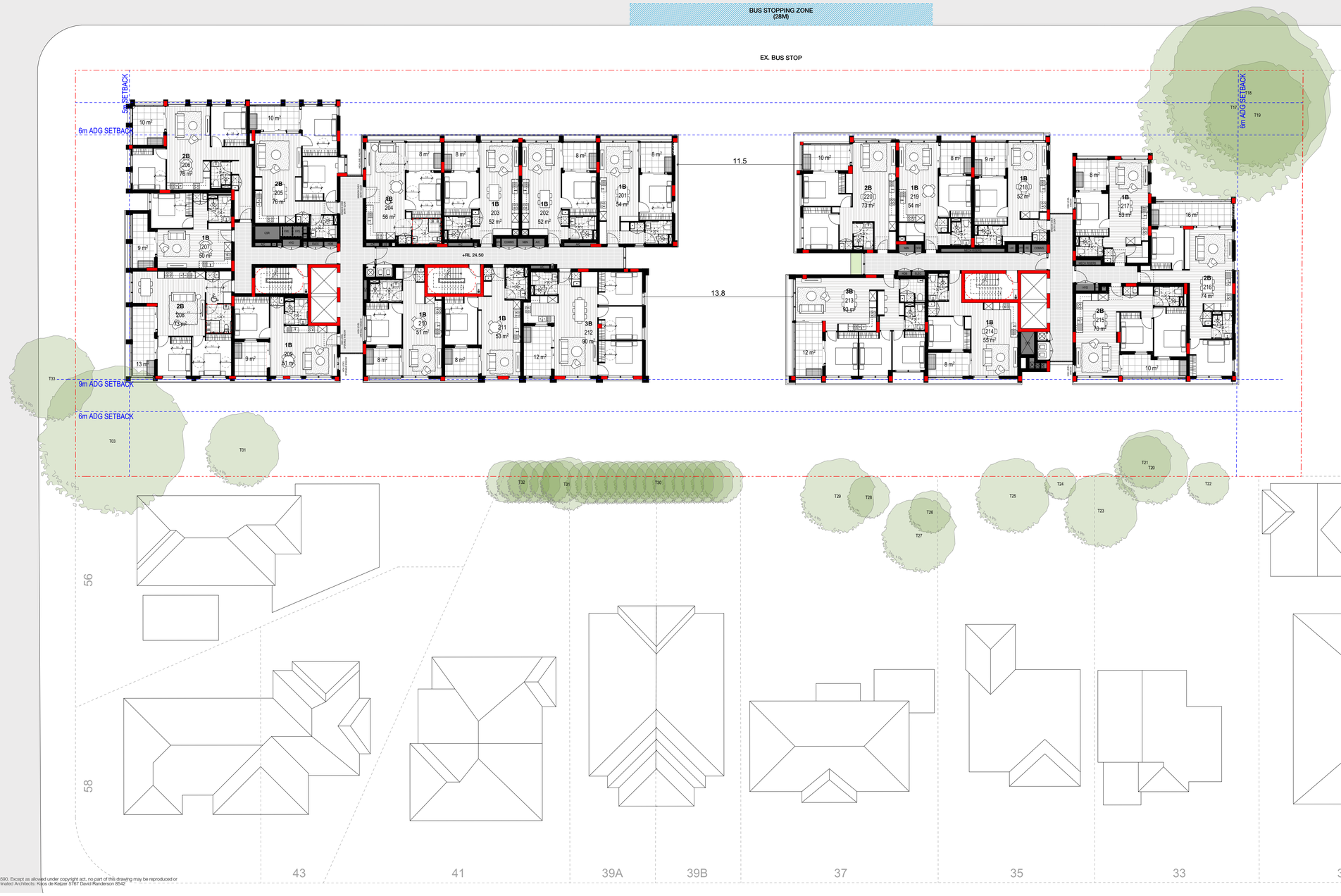
A	29/09/2025	DK AL	DF	SSDA Submission



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Project Name	54 Lakemba Street Belmore
Project Number	13921
Project Address	270-278 Burwood Road Belmore NSW 2192
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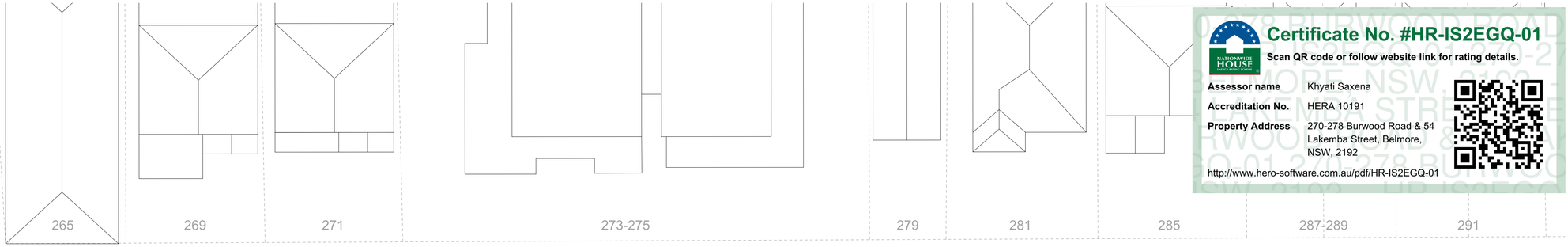
Drawing Name
Overall - Level 2

Drawing Scale 1:200 @ A1

Drawing No. DA204

Revision A



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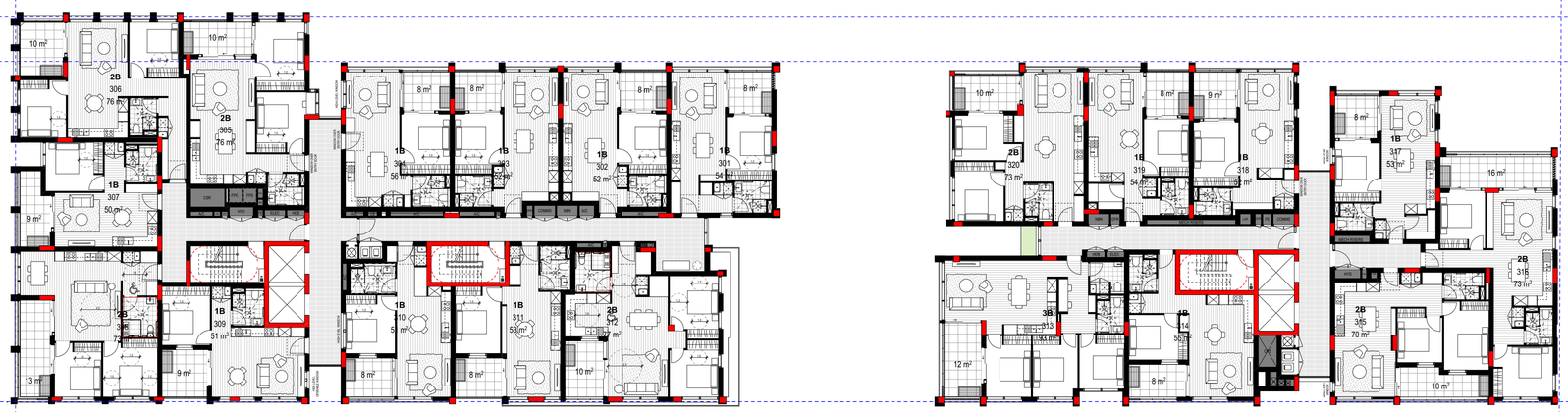
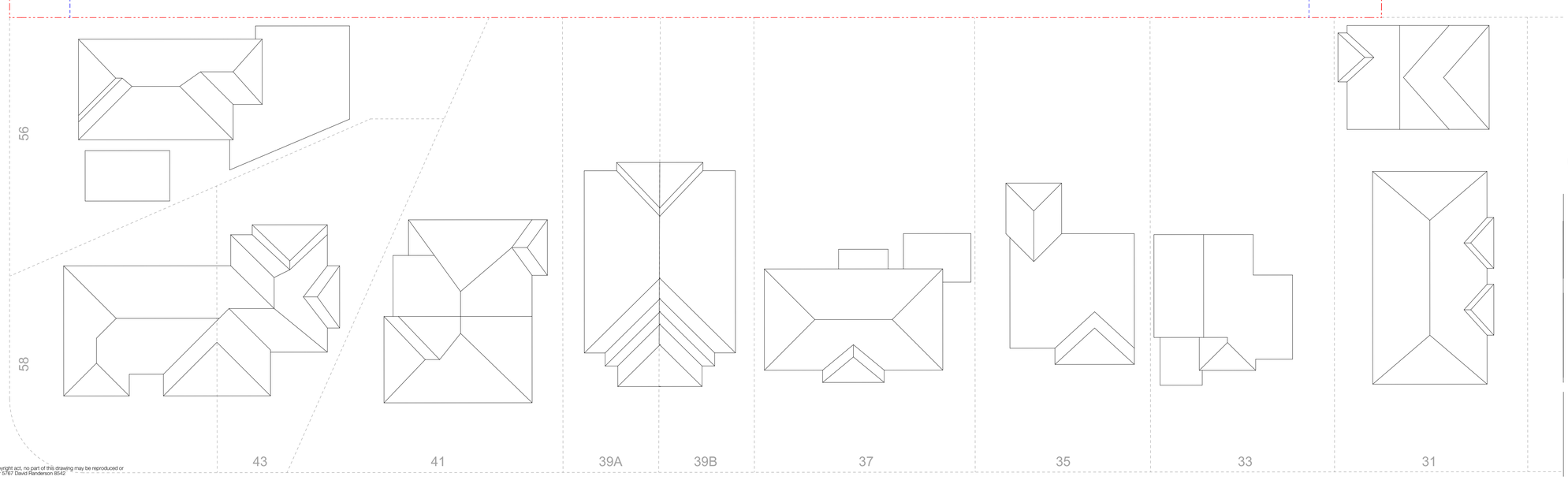
Rev	Date	By	Chk	Description

LAKEMBA STREET

BURWOOD ROAD





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Project Name	54 Lakemba Street Belmore
Project Number	13921
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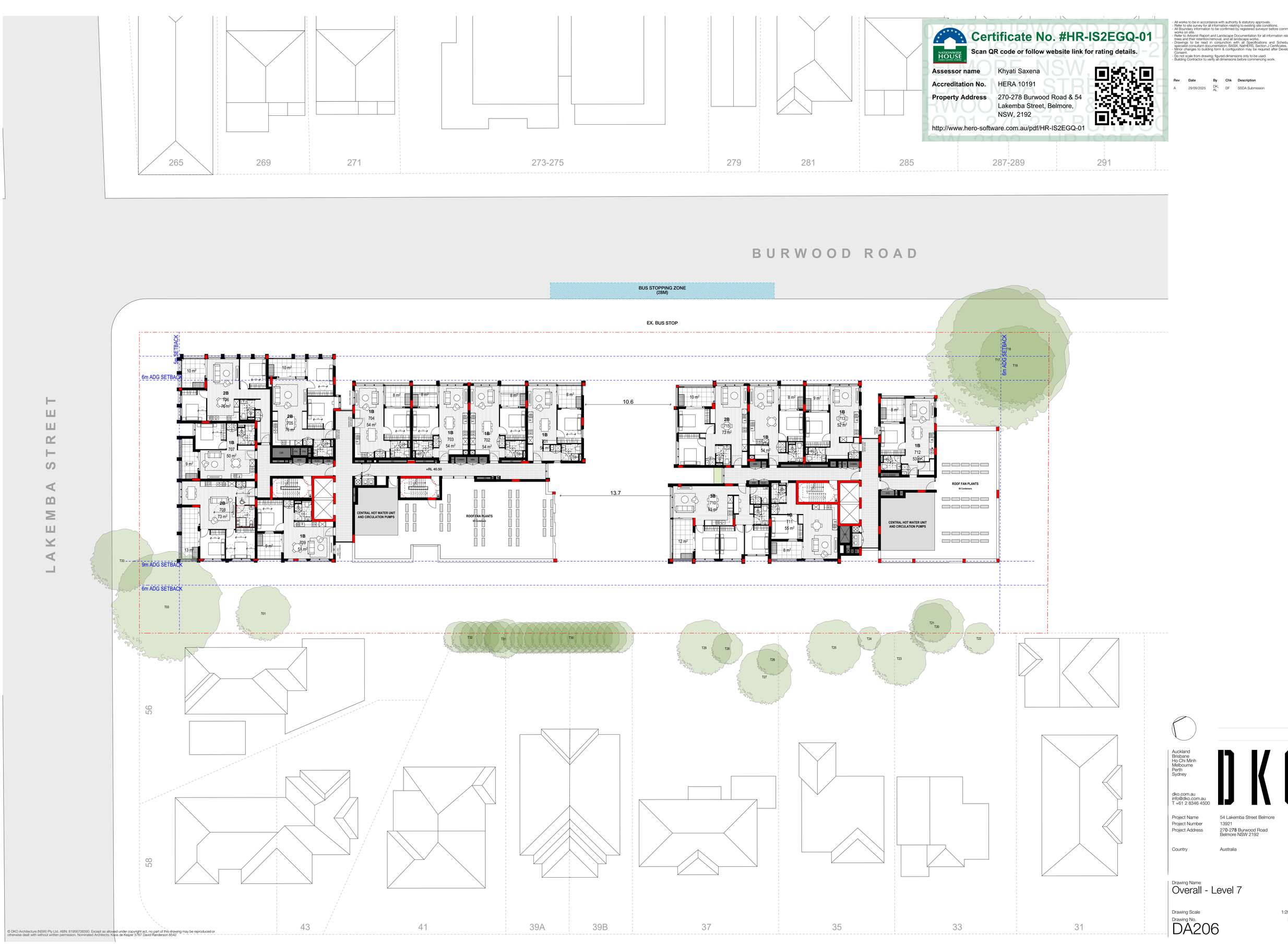
Drawing Name
Overall - Level 3-6

Drawing Scale 1:200 @ A1

Drawing No. DA205 Revision



Certificate No. #HR-IS2EGQ-01

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Assessor name	Khyati Saxena
Accreditation No.	HERA 10191
Property Address	270-278 Burwood Road & 54 Lakemba Street, Belmore, NSW, 2192

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Project Number	13921
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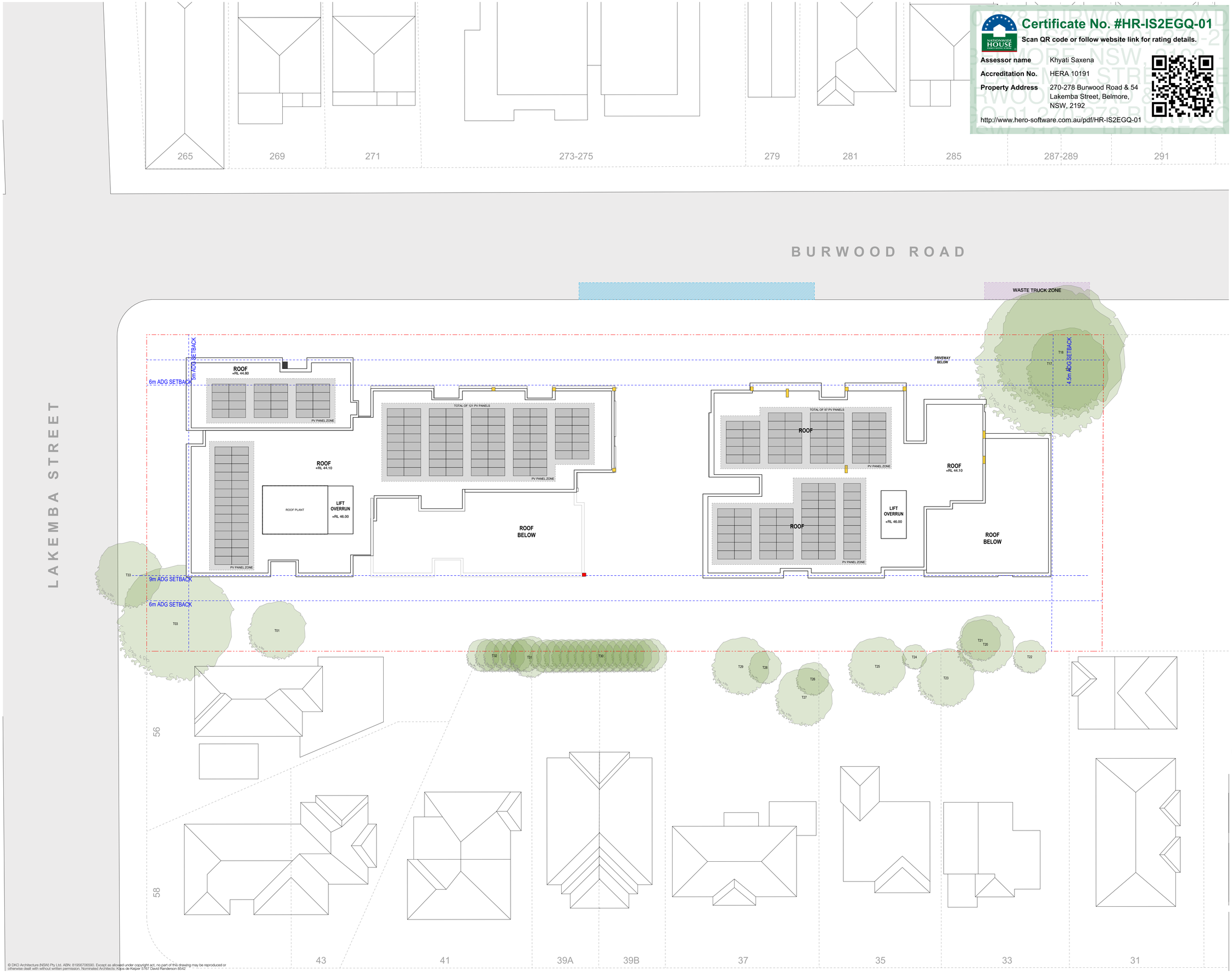
Drawing Name
Overall - Level 7

Drawing Scale 1:200 @ A1

Drawing No. DA206

Revision A



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Project Name	54 Lakemba Street Belmore
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Country	Australia

Drawing Name
Overall - Roof

Drawing Scale	1:200 @ A1
Drawing No.	Revision
DA207	A

Certificate No. #HR-IS2EGQ-01

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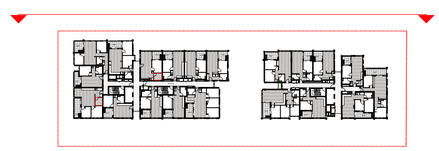
01 EAST ELEVATION (BURWOOD ROAD) 1:200

LEGEND

EF-01	Finish:	Face Brick
	Material:	Brick
	Colour:	Brown
EF-02	Finish:	Natural
	Material:	Concrete
	Colour:	Natural
EF-03	Finish:	Pre Finished
	Material:	Concrete
	Colour:	Monument Grey
EF-04	Finish:	Pre Finished
	Product:	Concrete
	Colour:	Brown or Similar
EF-05	Finish:	PowderCoat
	Product:	Aluminium
	Colour:	Monument Grey
EF-06	Finish:	Clear
	Product:	Glass
	Colour:	Transparent
EF-07	Finish:	PowderCoat
	Product:	Aluminium
	Colour:	Monument Grey
EF-08	Finish:	Pre Finished
	Product:	Concrete
	Colour:	Dark brown or Similar
EF-09	Finish:	Pre Finished
	Product:	Concrete
	Colour:	Light Brown or Similar
EF-10	Finish:	Anodised
	Product:	Mesh
	Colour:	-
EF-11	Finish:	Obscure
	Product:	Glass
	Colour:	Obscure



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Drawing Name
East Elevations

Drawing Scale 1:200, 1:1000, 1:100 @ A1

Drawing No. DA300

Revision A

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A	29/09/2025	DK AL	DF	SSDA Submission

1 WEST ELEVATION 1:200

LEGEND

EF-01
Finish: Face Brick
Material: Brick
Colour: Brown

EF-02
Finish: Natural
Material: Concrete
Colour: Natural

EF-03
Finish: Pre Finished
Material: Concrete
Colour: Monument Grey

EF-04
Finish: Pre Finished
Product: Concrete
Colour: Brown or Similar

EF-05
Finish: PowderCoat
Product: Aluminium
Colour: Monument Grey

EF-06
Finish: Clear
Product: Glass
Colour: Transparent

EF-07
Finish: PowderCoat
Product: Aluminium
Colour: Monument Grey

EF-08
Finish: Pre Finished
Product: Concrete
Colour: Dark brown or Similar

EF-09
Finish: Pre Finished
Product: Concrete
Colour: Light Brown or Similar

EF-10
Finish: Anodised
Product: Mesh
Colour: -

EF-11
Finish: Obscure
Product: Glass
Colour: Obscure

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Project Name	54 Lakemba Street Belmore
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Drawing Name
West Elevation

Drawing Scale 1:200, 1:1000, 1:100 @ A1
Drawing No. DA301
Revision A

01 NORTH ELEVATION (LAKEMBA STREET) 1:200

03 SOUTH ELEVATION 1:200

LEGEND

EF-01	Finish:	Face Brick
	Material:	Brick
	Colour:	Brown
EF-02	Finish:	Natural
	Material:	Concrete
	Colour:	Natural
EF-03	Finish:	Pre Finished
	Material:	Concrete
	Colour:	Monument Grey
EF-04	Finish:	Pre Finished
	Product:	Concrete
	Colour:	Brown or Similar
EF-05	Finish:	PowderCoat
	Product:	Aluminium
	Colour:	Monument Grey
EF-06	Finish:	Clear
	Product:	Glass
	Colour:	Transparent
EF-07	Finish:	PowderCoat
	Product:	Aluminium
	Colour:	Monument Grey
EF-08	Finish:	Pre Finished
	Product:	Concrete
	Colour:	Dark brown or Similar
EF-09	Finish:	Pre Finished
	Product:	Concrete
	Colour:	Light Brown or Similar
EF-10	Finish:	Anodised
	Product:	Mesh
	Colour:	-
EF-11	Finish:	Obscure
	Product:	Glass
	Colour:	Obscure

Certificate No. #HR-IS2EGQ-01

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Drawing Name
North & South Elevation

Drawing Scale 1:200, 1:1000, 1:100 @ A1

Drawing No. DA302

Revision A

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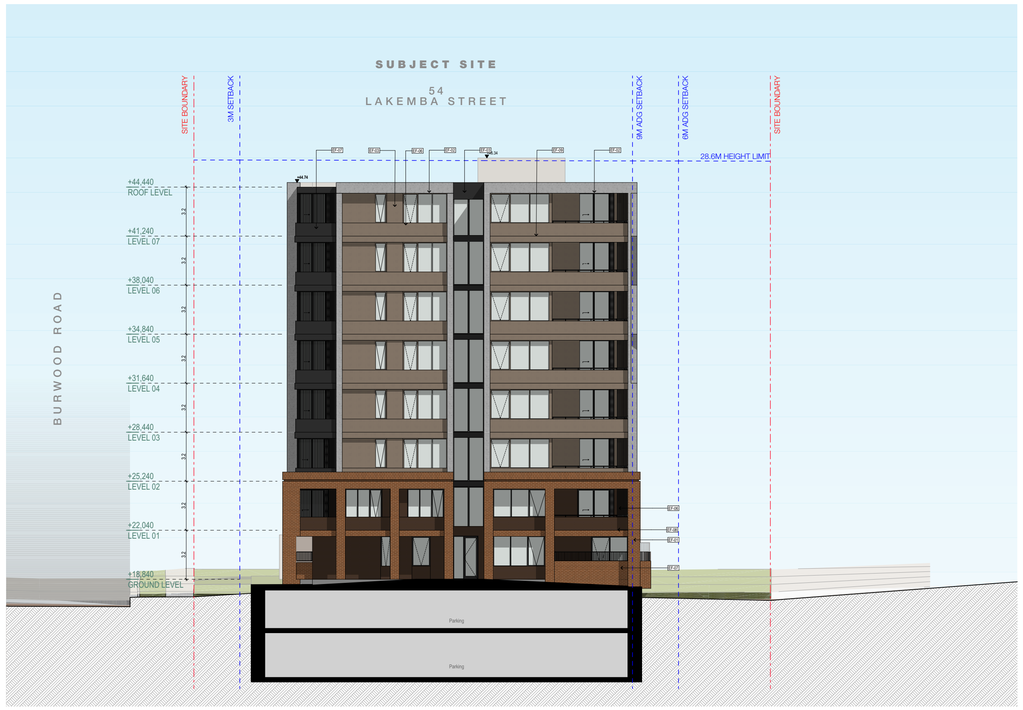
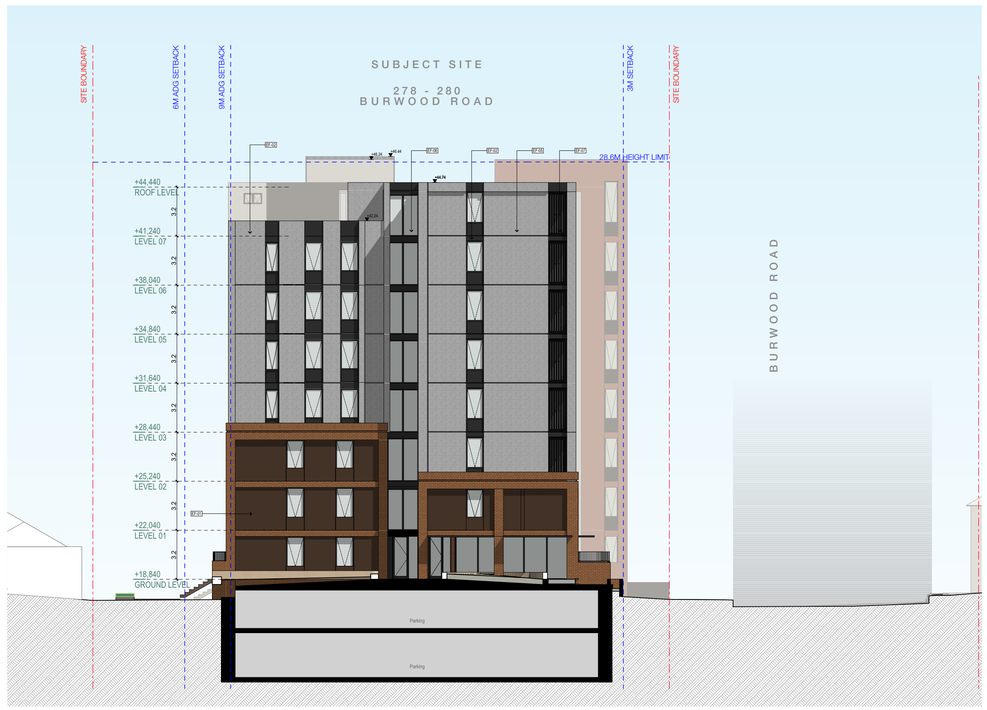


01 INTERNAL NORTH - ELEVATION 1:200



02 INTERNAL SOUTH - ELEVATION 1:200

LEGEND

EF-01	Finish:	Face Brick
	Material:	Brick
	Colour:	Brown
EF-02	Finish:	Natural
	Material:	Concrete
	Colour:	Natural
EF-03	Finish:	Pre Finished
	Material:	Concrete
	Colour:	Monument Grey
EF-04	Finish:	Pre Finished
	Product:	Concrete
	Colour:	Brown or Similar
EF-05	Finish:	PowderCoat
	Product:	Aluminium
	Colour:	Monument Grey
EF-06	Finish:	Clear
	Product:	Glass
	Colour:	Transparent
EF-07	Finish:	PowderCoat
	Product:	Aluminium
	Colour:	Monument Grey
EF-08	Finish:	Pre Finished
	Product:	Concrete
	Colour:	Dark brown or Similar
EF-09	Finish:	Pre Finished
	Product:	Concrete
	Colour:	Light Brown or Similar
EF-10	Finish:	Anodised
	Product:	Mesh
	Colour:	-
EF-11	Finish:	Obscure
	Product:	Glass
	Colour:	Obscure

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Project Name	54 Lakemba Street Belmore
Project Number	13921
Project Address	270-278 Burwood Road Belmore NSW 2192
Country	Australia

Drawing Name
Internal elevations

Drawing Scale 1:200, 1:1000, 1:100 @ A1

Drawing No. DA303

Revision A

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Rev	Date	By	Chk	Description

1 SECTION AA 1:200

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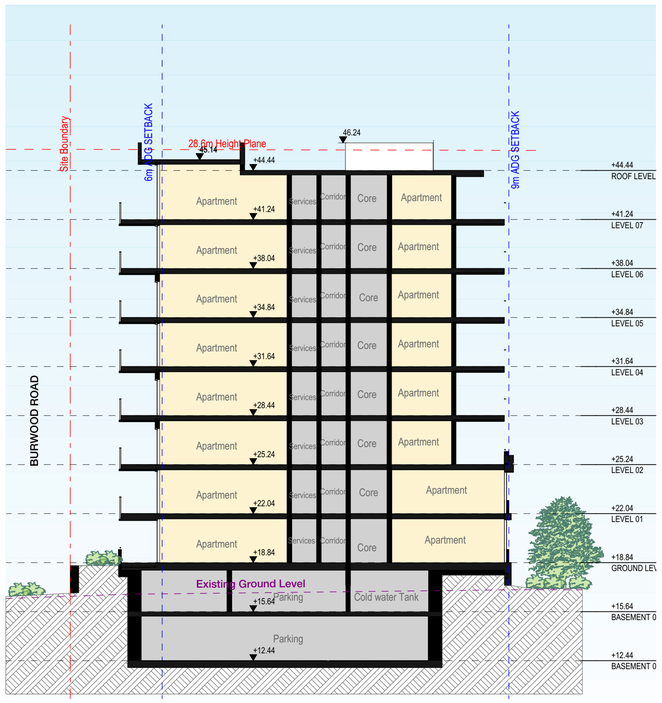
Project Name	54 Lakemba Street Belmore
Project Number	13921
Project Address	270-278 Burwood Road & 54 Lakemba Street Belmore NSW 2192
Country	Australia

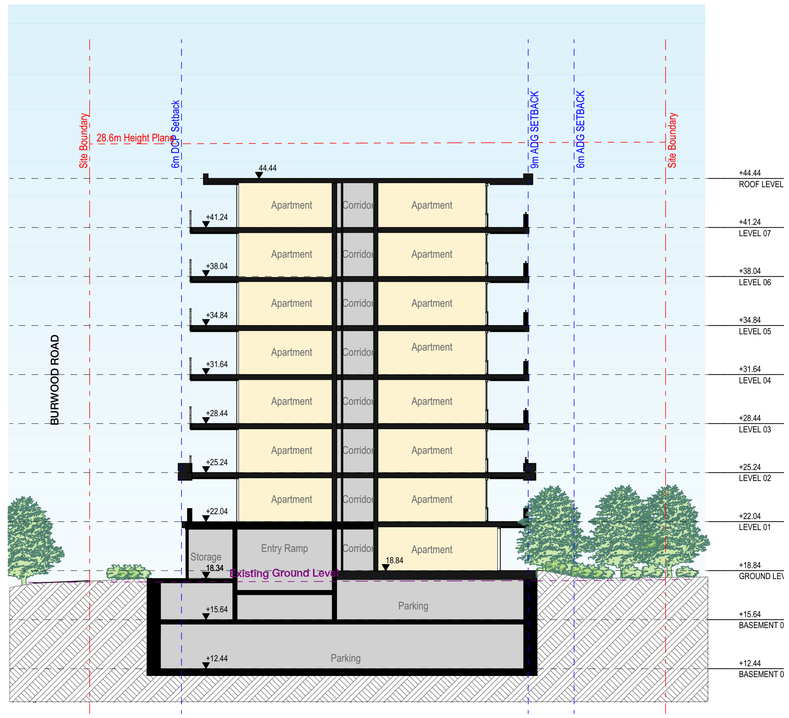
Drawing Name
Long Section

Drawing Scale 1:200 @ A1

Drawing No. Revision
DA304



2 SECTION BB 1:200



3 SECTION CC 1:200

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Project Name	54 Lakemba Street Belmore
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Country	Australia

Drawing Name
Short Sections

Drawing Scale 1:1000, 1:200 @ A1
Drawing No. DA305
Revision A

ADP
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Appendix C
BASIX Certificate

BASIX™Certificate

Building Sustainability Index
www.planningportal.nsw.gov.au/development-and-assessment/basix

Multi Dwelling

Certificate number: 1818587M

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 10/09/2020 published by the Department. This document is available at www.planningportal.nsw.gov.au/definitions

Secretary
Date of issue: Thursday, 23 October 2025
To be valid, this certificate must be submitted with a development application or lodged with a complying development certificate application within 3 months of the date of issue.

When submitting this BASIX certificate with a development application or complying development certificate application, it must be accompanied by NatHERS certificate HR-H4XT0A-01.

Project summary	
Project name	54 Lakemba Street Belmore Rev02
Street address	270-278 BURWOOD ROAD BELMORE 2192
Local Government Area	CANTERBURY-BANKSTOWN
Plan type and plan number	Deposited Plan 124465
Lot No.	1
Section no.	-
No. of residential flat buildings	2
Residential flat buildings: no. of dwellings	145
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Project score		
Water	✔ 41	Target 40
Thermal Performance	✔ Pass	Target Pass
Energy	✔ 67	Target 60
Materials	✔ -100	Target n/a

Certificate Prepared by
Name / Company Name: ADP CONSULTANTS PTY LTD
ABN (if applicable): 68610202198

Description of project

Project address	
Project name	54 Lakemba Street Belmore Rev02
Street address	270-278 BURWOOD ROAD BELMORE 2192
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Project type	
No. of residential flat buildings	2
Residential flat buildings: no. of dwellings	145
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Site details	
Site area (m²)	4281
Roof area (m²)	2083
Non-residential floor area (m²)	0
Residential car spaces	70
Non-residential car spaces	2

Common area landscape	
Common area lawn (m²)	117
Common area garden (m²)	1248
Area of indigenous or low water use species (m²)	873.6

Assessor details and thermal loads	
Assessor number	HERA10191
Certificate number	HR-H4XT0A-01
Climate zone	56

Project score			
Water	✔	41	Target 40
Thermal Performance	✔	Pass	Target Pass
Energy	✔	67	Target 60
Materials	✔	-100	Target n/a

Description of project

The tables below describe the dwellings and common areas within the project

Residential flat buildings - North Tower, 87 dwellings, 7 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
N - 101	1	54	0	0	0
N - 105	2	76	0	0	0
N - 109	3	109	0	0	0
N - 203	1	52	0	0	0
N - 207	1	50	0	0	0
N - 211	1	53	0	0	0
N - 303	1	52	0	0	0
N - 307	1	50	0	0	0
N - 311	1	53	0	0	0
N - 403	1	52	0	0	0
N - 407	1	50	0	0	0
N - 411	1	53	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
N - 102	1	52	0	0	0
N - 106	2	76	0	0	0
N - 110	3	90	0	0	0
N - 204	1	56	0	0	0
N - 208	2	73	0	0	0
N - 212	3	90	0	0	0
N - 304	1	56	0	0	0
N - 308	2	73	0	0	0
N - 312	2	77	0	0	0
N - 404	1	56	0	0	0
N - 408	2	73	0	0	0
N - 412	2	77	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
N - 103	1	52	0	0	0
N - 107	2	77	8	0	0
N - 201	1	54	0	0	0
N - 205	2	76	8	0	0
N - 209	1	51	0	0	0
N - 301	1	54	8	0	0
N - 305	2	76	0	0	0
N - 309	1	51	0	0	0
N - 401	1	54	0	0	0
N - 405	2	76	0	0	0
N - 409	1	51	0	0	0
N - 501	1	54	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
N - 104	1	56	0	0	0
N - 108	3	106	0	0	0
N - 202	1	52	0	0	0
N - 206	2	76	0	0	0
N - 210	1	51	8	0	0
N - 302	1	52	0	0	0
N - 306	2	76	8	0	0
N - 310	1	51	0	0	0
N - 402	1	52	8	0	0
N - 406	2	76	0	0	0
N - 410	1	51	0	0	0
N - 502	1	52	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
N - 503	1	52	0	0	0
N - 507	1	50	0	0	0
N - 511	1	53	0	0	0
N - 603	1	52	0	0	0
N - 607	1	50	0	0	0
N - 611	1	53	0	0	0
N - 703	1	54	0	0	0
N - 707	1	50	0	0	0
N - G03	2	76	0	0	0
N - G07	2	94	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
N - 504	1	56	0	0	0
N - 508	2	73	0	0	0
N - 512	2	77	0	0	0
N - 604	1	56	0	0	0
N - 608	2	73	0	0	0
N - 612	2	77	0	0	0
N - 704	1	54	0	0	0
N - 708	2	73	0	0	0
N - G04	2	75	0	0	0
N - G08	3	92	8	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
N - 505	2	76	0	0	0
N - 509	1	51	8	0	0
N - 601	1	54	0	0	0
N - 605	2	76	8	0	0
N - 609	1	51	0	0	0
N - 701	1	56	8	0	0
N - 705	2	76	0	0	0
N - G01	2	81	0	0	0
N - G05	2	77	0	0	0
N-709	1	51	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
N - 506	2	76	0	0	0
N - 510	1	51	0	0	0
N - 602	1	52	0	0	0
N - 606	2	76	0	0	0
N - 610	1	51	0	0	0
N - 702	1	54	0	0	0
N - 706	2	76	0	0	0
N - G02	1	53	0	0	0
N - G06	3	92	0	0	0

Residential flat buildings - South Tower, 58 dwellings, 7 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
S - 111	3	95	0	0	0
S - 115	1	53	0	0	0
S - 213	3	93	0	0	0
S - 217	1	53	0	0	0
S - 313	3	93	0	0	0
S - 317	1	53	8	0	0
S - 413	3	93	8	0	0
S - 417	1	53	0	0	0
S - 513	3	93	0	0	0
S - 517	1	53	0	0	0
S - 613	3	93	8	0	0
S - 617	1	53	0	0	0
S - 710	3	93	0	0	0
S - 714	1	54	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
S - 112	1	55	8	0	0
S - 116	1	52	0	0	0
S - 214	1	55	0	0	0
S - 218	1	52	0	0	0
S - 314	1	55	0	0	0
S - 318	1	52	0	0	0
S - 414	1	55	0	0	0
S - 418	1	52	8	0	0
S - 514	1	55	8	0	0
S - 518	1	52	0	0	0
S - 614	1	55	0	0	0
S - 618	1	52	0	0	0
S - 711	1	55	0	0	0
S - 715	2	73	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
S - 113	2	70	0	0	0
S - 117	1	54	0	0	0
S - 215	2	70	0	0	0
S - 219	1	54	0	0	0
S - 315	2	70	0	0	0
S - 319	1	54	0	0	0
S - 415	2	70	0	0	0
S - 419	1	54	0	0	0
S - 515	2	70	0	0	0
S - 519	1	54	0	0	0
S - 615	2	70	0	0	0
S - 619	1	54	0	0	0
S - 712	1	53	0	0	0
S - G09	2	76	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
S - 114	2	73	0	0	0
S - 118	2	73	0	0	0
S - 216	2	74	0	0	0
S - 220	2	73	0	0	0
S - 316	2	73	0	0	0
S - 320	2	73	0	0	0
S - 416	2	73	0	0	0
S - 420	2	73	0	0	0
S - 516	2	73	0	0	0
S - 520	2	73	0	0	0
S - 616	2	73	0	0	0
S - 620	2	73	0	0	0
S - 713	1	52	0	0	0
S - G10	1	53	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
S - G11	3	98	0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
S - G12	1	52	8	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)

Description of project

The tables below describe the dwellings and common areas within the project

Common areas of the development (non-building specific)

Common area	Floor area (m²)
Undercover car park area	3208.8
B1 Bin Holding Area	75.45
B1 Fire Pump Room	56.78
B1 Cold Water Tank Room	24.97

Common area	Floor area (m²)
B1 Main Switch Room	30.2
B2 Carpark Exhaust Fan Room	38.24
B1 Main Comms Room	15.9
B1 Rainwater Pump Filtration & Storage Room	16.27

Common area	Floor area (m²)
B1 Waste Room	112.1
B1 Carpark Supply Fan Room	30.29
B2 Sewer Pump Room	9.45
B1 Carpark Exhaust Fan Room	38.9

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - North Tower
    - (a) Buildings
        - (i) Materials
    - (b) Dwellings
        - (i) Water
        - (ii) Energy
        - (iii) Thermal Performance
    - (c) Common areas and central systems/facilities
        - (i) Water
        - (ii) Energy

2. Commitments for Residential flat buildings - South Tower
    - (a) Buildings
        - (i) Materials
    - (b) Dwellings
        - (i) Water
        - (ii) Energy
        - (iii) Thermal Performance
    - (c) Common areas and central systems/facilities
        - (i) Water
        - (ii) Energy

3. Commitments for multi-dwelling housing
    - (a) Dwellings
        - (i) Water
        - (ii) Energy
        - (iii) Thermal Performance and Materials

4. Commitments for single dwelling houses

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance and Materials

5. Commitments for common areas and central systems/facilities for the development (non-building specific)

(a) Buildings 'Other'

(i) Materials

(b) Common areas and central systems/facilities

(i) Water

(ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carriedout. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

1. Commitments for Residential flat buildings - North Tower

(a) Buildings

(i) Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the “Floor types”, “External wall types”, “Internal wall types”, “Ceiling and roof types”, “Frames” and “Glazing” tables below.			✔
(b) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all specifications included in the tables below.		✔	
(c) The applicant must construct the floors, walls, roof, ceiling and roof, windows, glazed doors and skylights of the development in accordance with the specifications listed in the tables below. In the case of glazing, a 5% variance from the area values listed in the “Frames” and “Glazing” tables is permitted.	✔	✔	✔
(d) The applicant must show through receipts that the materials purchased for construction are consistent with the specifications listed in the below tables.			✔

Floor types			
Floor type	**Area (m2)**	**Insulation**	**Low emissions option**
concrete slab on ground, frame:	1012	-	none
floors above habitable rooms, frame: suspended concrete slab	5778.68	-	-

External wall types				
External wall type	**Construction type**	**Area (m2)**	**Low emissions option**	**Insulation**
External wall type 1	concrete block/ plasterboard,frame:light steel frame	3580.5	-	fibreglass batts or roll

Internal wall types			
Internal wall type	**Construction type**	**Area (m2)**	**Insulation**
Internal wall type 1	plasterboard, frame:light steel frame	3368.75	-
Internal wall type 2	single skin masonry, frame:light steel frame	1245	fibreglass batts or roll

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	**Volume (m^3)**	**Low emissions option**
yes	203.84	-

Ceiling and roof types			
Ceiling and roof type	**Area (m^2)**	**Roof Insulation**	**Ceiling Insulation**
concrete - plasterboard internal, frame: no frame	1166.5	-	fibreglass batts or roll

Glazing types			Frame types				
Single glazing (m^2)	**Double glazing (m^2)**	**Triple glazing (m^2)**	**Aluminium frames (m^2)**	**Timber frames (m^2)**	**uPVC frames (m^2)**	**Steel frames (m^2)**	**Composite frames (m^2)**
1433.64	-	-	1433.64	-	-	-	-

(b) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✔	✔	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✔	✔
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✔	✔
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✔	✔
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✔	✔
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✔	✔	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✔	
(g) The pool or spa must be located as specified in the table.	✔	✔	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✔	✔	✔

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
N-709	4 star (> 4.5 but <= 6 L/min)	4 star	5 star	5 star	-	not specified	not specified	-	-	-	-	-	-	-

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All other dwellings	4 star (> 4.5 but <= 6 L/min)	4 star	5 star	5 star	-	not specified	not specified	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
All dwellings	No alternative water supply	-	-	-	-	-	-	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✔	✔	✔
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✔	✔
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✔	✔
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✔	✔
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✔	✔	✔

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:			
(aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and		✔	
(bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✔	
(h) The applicant must install in the dwelling:			
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✔	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		✔	✔
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✔	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✔	

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	Central hot water system (No. 1)	individual fan, ducted to façade or roof	interlocked to light with timer off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light

	Cooling		Heating		Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bathrooms or toilets	Main kitchen
N-709	-	-	-	-	0	-
All other dwellings	1-phase airconditioning - non ducted / EER 3.0 - 3.5	no individual system	1-phase airconditioning - non ducted / EER 3.0 - 3.5	no individual system	0	yes

	Individual pool			Individual spa		Appliances other efficiency measures				
Dwelling no.	Pool heating system	Pool Pump	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Dishwasher	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
N-709	-	-	-	-	-	induction cooktop & electric oven	-	-	-	-
All other dwellings	-	-	-	-	-	induction cooktop & electric oven	-	-	no	no

(iii) Thermal Performance	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✔		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✔	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✔	✔
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✔	✔	✔
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✔	✔	✔

(iii) Thermal Performance	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✔		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✔	

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
N - 101	6.1	7.6	13.700
N - 102	1.4	6.6	8.000
N - 103	2.8	6.1	8.900
N - 104	8.7	7.3	16.000
N - 105	2.8	6.7	9.500
N - 106	0.6	8.9	9.500
N - 107	0.5	3.2	3.700
N - 108	11	4.6	15.600
N - 109	16.6	3.1	19.700
N - 110	18.2	4.7	22.900
N - 201	8.4	9.2	17.600
N - 202	9.1	3.5	12.600
N - 203	9.4	2.7	12.100
N - 204	8.4	8.8	17.200
N - 205	9.6	4	13.600
N - 206	9.4	0.7	10.100
N - 207	10	0.5	10.500
N - 208	8	4.2	12.200
N - 209	6.2	21.3	27.500
N - 210	7.7	18.9	26.600
N - 211	7.4	15.8	23.200
N - 212	8.8	10.3	19.100
N - 301	10.4	7.4	17.800
N - 302	3.9	7.8	11.700

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
N - 303	3.1	6.4	9.500
N - 304	9.6	7.5	17.100
N - 305	5.2	4.7	9.900
N - 306	0.6	7.5	8.100
N - 307	0.4	5.3	5.700
N - 308	2.9	9.5	12.400
N - 309	2.5	10.3	12.800
N - 310	19.3	7.7	27.000
N - 311	15.2	5.9	21.100
N - 312	12.4	4	16.400
N - 401	2.7	9.9	12.600
N - 402	20.6	7.3	27.900
N - 403	16.3	6.3	22.600
N - 404	8.3	2.6	10.900
N - 405	22.9	4.4	27.300
N - 406	11.5	7.2	18.700
N - 407	4.9	7.8	12.700
N - 408	3.7	6.7	10.400
N - 409	11.5	7.6	19.100
N - 410	6.1	4.6	10.700
N - 411	0.7	7.3	8.000
N - 412	0.7	5.1	5.800
N - 501	6.4	4.2	10.600
N - 502	0.7	7.2	7.900
N - 503	0.8	5.2	6.000
N - 504	3	9.5	12.500
N - 505	22.3	9.9	32.200
N - 506	24	8.2	32.200
N - 507	18.4	4	22.400
N - 508	29.8	7.9	37.700
N - 509	15.3	9.2	24.500

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
N - 510	9	9.9	18.900
N - 511	7.9	8.1	16.000
N - 512	16.3	10.1	26.400
N - 601	4.2	7.2	11.400
N - 602	8.3	7.4	15.700
N - 603	8.6	8.2	16.800
N - 604	4.7	7.8	12.500
N - 605	2.4	6.9	9.300
N - 606	22.2	8	30.200
N - 607	17.2	2.8	20.000
N - 608	19.1	2.9	22.000
N - 609	6.9	6.3	13.200
N - 610	11.7	6.7	18.400
N - 611	11.3	7.4	18.700
N - 612	5.6	7.3	12.900
N - 701	3.8	4.9	8.700
N - 702	11.6	8.1	19.700
N - 703	16.9	2.8	19.700
N - 704	29	4.8	33.800
N - 705	12.8	8.3	21.100
N - 706	11.8	6.7	18.500
N - 707	11.5	7.3	18.800
N - 708	7.7	6	13.700
N - G01	7.2	7.1	14.300
N - G02	8.2	11.1	19.300
N - G03	9.4	7.3	16.700
N - G04	1.1	6.6	7.700
N - G05	0.6	3.5	4.100
N - G06	10.1	6.5	16.600
N - G07	21.6	6.5	28.100
N - G08	15.9	7	22.900

	Thermal loads		
Dwelling no.	**Area adjusted heating load (in MJ/m²/yr)**	**Area adjusted cooling load (in MJ/m²/yr)**	**Area adjusted total load (in MJ/m²/yr)**
All other dwellings	2.8	4.9	7.700

(c) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✔	✔
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✔	✔	✔
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✔	✔	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✔	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✔	✔
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✔	✔

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	4 star (> 6 but <= 7.5 L/min)	4 star	5 star	5 star

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✔	✔
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✔	✔
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✔	✔	✔

	Common area ventilation system		Common area lighting		
Common area	**Ventilation system type**	**Ventilation efficiency measure**	**Primary type of artificial lighting**	**Lighting efficiency measure**	**Lighting control system/ BMS**
GL Communal Room	air conditioning system	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	no
GL W/C	ventilation exhaust only	time clock or BMS controlled	light-emitting diode	time clock and motion sensors	no
GL Meeting Room	air conditioning system	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	no
Fire Stairs (N)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Lobbies/Hallways Breezeway (N)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Ground Floor Lobby (N)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	no
Lobbies/Hallways (N)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no

Central energy systems	Type	Specification
Lift bank (No. 1)	permanent magnet synchronous motor (PMSM) and regenerative drive	Number of levels with apartments served by a lift: 7 number of levels from the bottom of the lift shaft to the top of the lift shaft: 9 number of lifts: 2 lift load capacity: >= 1001 kg but <= 1500kg

2. Commitments for Residential flat buildings - South Tower

(a) Buildings

(i) Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the “Floor types”, “External wall types”, “Internal wall types”, “Ceiling and roof types”, “Frames” and “Glazing” tables below.			✔
(b) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all specifications included in the tables below.		✔	
(c) The applicant must construct the floors, walls, roof, ceiling and roof, windows, glazed doors and skylights of the development in accordance with the specifications listed in the tables below. In the case of glazing, a 5% variance from the area values listed in the “Frames” and “Glazing” tables is permitted.	✔	✔	✔
(d) The applicant must show through receipts that the materials purchased for construction are consistent with the specifications listed in the below tables.			✔

Floor types

Floor type	Area (m2)	Insulation	Low emissions option
concrete slab on ground, frame:	832	-	none
floors above habitable rooms, frame: suspended concrete slab	3847.81	-	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	concrete block/ plasterboard,frame:light steel frame	2894	-	fibreglass batts or roll

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	plasterboard, frame:light steel frame	3368.75	-
Internal wall type 2	single skin masonry, frame:light steel frame	1245	fibreglass batts or roll

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m^3)	Low emissions option
yes	203.84	-

Ceiling and roof types			
Ceiling and roof type	Area (m^2)	Roof Insulation	Ceiling Insulation
concrete - plasterboard internal, frame: no frame	916.5	-	fibreglass batts or roll

Glazing types			Frame types				
Single glazing (m^2)	Double glazing (m^2)	Triple glazing (m^2)	Aluminium frames (m^2)	Timber frames (m^2)	uPVC frames (m^2)	Steel frames (m^2)	Composite frames (m^2)
955.76	-	-	955.76	-	-	-	-

(b) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✔	✔	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✔	✔
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✔	✔
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✔	✔
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✔	✔
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✔	✔	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✔	
(g) The pool or spa must be located as specified in the table.	✔	✔	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✔	✔	✔

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	4 star (> 4.5 but <= 6 L/min)	4 star	5 star	5 star	-	not specified	not specified	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	**Alternative water supply systems**	**Size**	**Configuration**	**Landscape connection**	**Toilet connection (s)**	**Laundry connection**	**Pool top-up**	**Spa top-up**
All dwellings	No alternative water supply	-	-	-	-	-	-	-

(ii) Energy	**Show on DA plans**	**Show on CC/CDC plans & specs**	**Certifier check**
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✔	✔	✔
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✔	✔
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✔	✔
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✔	✔
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✔	✔	✔
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:			
(aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and		✔	
(bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✔	
(h) The applicant must install in the dwelling:			
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✔	

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✔ ✔	✔
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✔	

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	Central hot water system (No. 1)	individual fan, ducted to façade or roof	interlocked to light with timer off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light

	Cooling		Heating		Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bathrooms or toilets	Main kitchen
All dwellings	1-phase airconditioning - non ducted / EER 3.0 - 3.5	no individual system	1-phase airconditioning - non ducted / EER 3.0 - 3.5	no individual system	0	yes

	Individual pool			Individual spa		Appliances other efficiency measures				
Dwelling no.	Pool heating system	Pool Pump	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Dishwasher	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	-	induction cooktop & electric oven	-	-	no	no

(iii) Thermal Performance	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✔		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✔	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✔	✔
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✔	✔	✔
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✔	✔	✔
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✔		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✔	

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
S - 111	17.5	7.1	24.600
S - 112	9.5	3.3	12.800
S - 113	12	3.1	15.100
S - 114	18	3.9	21.900

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
S - 115	9	6.6	15.600
S - 116	12	5.7	17.700
S - 117	9.3	5.7	15.000
S - 118	2.2	6.8	9.000
S - 213	7.5	14	21.500
S - 214	8.7	10.7	19.400
S - 215	8.3	14.1	22.400
S - 216	8	16.6	24.600
S - 217	8.4	9	17.400
S - 218	8.6	6.9	15.500
S - 219	9.2	2.7	11.900
S - 220	9.4	2.7	12.100
S - 313	20.8	4.5	25.300
S - 314	10.5	7.3	17.800
S - 315	4.3	8	12.300
S - 316	3.5	6.6	10.100
S - 317	11.6	7.6	19.200
S - 318	6	4.5	10.500
S - 319	0.6	6.9	7.500
S - 320	0.6	5.3	5.900
S - 413	21	6.6	27.600
S - 414	16.8	5.7	22.500
S - 415	8.7	2.6	11.300
S - 416	23.6	4.5	28.100
S - 417	12	6.7	18.700
S - 418	5.2	7.6	12.800
S - 419	3.9	6.5	10.400
S - 420	12.2	7.1	19.300
S - 513	11.6	7	18.600
S - 514	3	9.1	12.100
S - 515	3.6	8.1	11.700

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
S - 516	8.1	14.4	22.500
S - 517	22.4	14.3	36.700
S - 518	8.5	13.4	21.900
S - 519	4.5	5.2	9.700
S - 520	14.7	3.7	18.400
S - 613	4.2	5	9.200
S - 614	18.7	8	26.700
S - 615	17	3	20.000
S - 616	20.5	2.8	23.300
S - 617	7.3	6.1	13.400
S - 618	11.8	6.7	18.500
S - 619	11.5	7.3	18.800
S - 620	7.5	6.3	13.800
S - 710	18	12.1	30.100
S - 711	27.3	5.5	32.800
S - 712	20.8	7.7	28.500
S - 713	13.3	11	24.300
S - 714	14.6	8.7	23.300
S - 715	6.2	8.1	14.300
S - G09	18.3	10.2	28.500
S - G10	15.7	10.9	26.600
S - G11	17.9	6.4	24.300
All other dwellings	7.4	5.7	13.100

(c) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✔	✔
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✔	✔	✔
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✔	✔	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✔	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✔	✔
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✔	✔

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	4 star (> 6 but <= 7.5 L/min)	4 star	5 star	5 star

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✔	✔
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✔	✔
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✔	✔	✔

	Common area ventilation system		Common area lighting		
Common area	**Ventilation system type**	**Ventilation efficiency measure**	**Primary type of artificial lighting**	**Lighting efficiency measure**	**Lighting control system/ BMS**
Lift bank (No. 1)	-	-	light-emitting diode	connected to lift call button	no
Lift bank (No. 2)	-	-	light-emitting diode	connected to lift call button	no
GL Bike Shed	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Fire Stairs (S)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
GL Waste Holding Area	ventilation exhaust only	none i.e., continuous	light-emitting diode	time clock and motion sensors	no
GL BWR	ventilation exhaust only	none i.e., continuous	light-emitting diode	time clock and motion sensors	no
Lobbies/Hallways Breezeway (S)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no
Ground Floor Lobby (S)	ventilation supply only	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	no
Lobbies/Hallways (S)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	no

Central energy systems	Type	Specification
Lift bank (No. 2)	permanent magnet synchronous motor (PMSM) and regenerative drive	Number of levels with apartments served by a lift: 7 number of levels from the bottom of the lift shaft to the top of the lift shaft: 9 number of lifts: 2 lift load capacity: >= 1001 kg but <= 1500kg

3. Commitments for multi-dwelling housing

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✔	✔	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✔	✔
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✔	✔
(e) The applicant must install: (aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and (bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✔ ✔	✔ ✔
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✔	✔	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✔	
(g) The pool or spa must be located as specified in the table.	✔	✔	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✔	✔	✔

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✔	✔	✔
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✔	✔

(ii) Energy	**Show on DA plans**	**Show on CC/CDC plans & specs**	**Certifier check**
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✔	✔
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✔	✔
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✔	✔	✔
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:			
(aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and		✔	
(bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✔	
(h) The applicant must install in the dwelling:			
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✔	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		✔	✔
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✔	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✔	
(iii) Thermal Performance and Materials	**Show on DA plans**	**Show on CC/CDC plans & specs**	**Certifier check**
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			

(iii) Thermal Performance and Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✔		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✔	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✔	✔
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✔	✔	✔
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✔	✔	✔
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✔		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✔	

4. Commitments for single dwelling houses

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✔	✔	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✔	✔
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✔	✔
(e) The applicant must install: (aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and (bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✔ ✔	✔ ✔
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✔	✔	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✔	
(g) The pool or spa must be located as specified in the table.	✔	✔	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✔	✔	✔

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✔	✔	✔
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✔	✔

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✔	✔
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✔	✔
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✔	✔	✔
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:			
(aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and		✔	
(bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✔	
(h) The applicant must install in the dwelling:			
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✔	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		✔	✔
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✔	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✔	
(iii) Thermal Performance and Materials	**Show on DA plans**	**Show on CC/CDC plans & specs**	**Certifier check**
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			

(iii) Thermal Performance and Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✔		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✔	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✔	✔
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✔	✔	✔
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✔	✔	✔
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✔		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✔	

5. Commitments for common areas and central systems/facilities for the development (non-building specific)

(a) Buildings 'Other'

(i) Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the “Floor types”, “External wall types”, “Internal wall types”, “Ceiling and roof types”, “Frames” and “Glazing” tables below.			✔
(b) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all specifications included in the tables below.		✔	
(c) The applicant must construct the floors, walls, roof, ceiling and roof, windows, glazed doors and skylights of the development in accordance with the specifications listed in the tables below. In the case of glazing, a 5% variance from the area values listed in the “Frames” and “Glazing” tables is permitted.	✔	✔	✔
(d) The applicant must show through receipts that the materials purchased for construction are consistent with the specifications listed in the below tables.			✔

Floor types

Floor type	Area (m2)	Insulation	Low emissions option
concrete slab on ground, frame:	1828.7	-	none
suspended floor above garage, frame: suspended concrete slab	1828.65	fibreglass batts or roll	-

External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	off form concrete,frame:no frame	1229	none	-

Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
-	-	-	-

Reinforcement concrete frames/columns

Building has reinforced concrete frame/columns?	Volume (m^3)	Low emissions option
-	-	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
-	-	-	

Glazing types			Frame types				
Single glazing (m²)	Double glazing (m²)	Triple glazing (m²)	Aluminium frames (m²)	Timber frames (m²)	uPVC frames (m²)	Steel frames (m²)	Composite frames (m²)
-	-	-	-	-	-	-	-

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✔	✔
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✔	✔	✔
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✔	✔	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✔	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✔	✔
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✔	✔

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	4 star (> 6 but <= 7.5 L/min)	4 star	5 star	5 star

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	10000	To collect run-off from at least: - 2083 square metres of roof area of buildings in the development - 0 square metres of impervious area in the development - 0 square metres of garden/lawn area in the development - 0 square metres of planter box area in the development (excluding, in each case, any area which drains to, or supplies, any other alternative water supply system).	- irrigation of 1365 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✔	✔

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✔	✔
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✔	✔	✔

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/ BMS
Undercover car park area	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	time clock and motion sensors	no
B1 Main Switch Room	ventilation supply only	none i.e., continuous	light-emitting diode	manual on / manual off	no
B1 Waste Room	ventilation exhaust only	none i.e., continuous	light-emitting diode	manual on / manual off	no
B1 Bin Holding Area	ventilation exhaust only	-	light-emitting diode	motion sensors	no
B2 Carpark Exhaust Fan Room	ventilation supply only	none i.e., continuous	light-emitting diode	manual on / manual off	no
B1 Carpark Supply Fan Room	ventilation supply only	none i.e., continuous	light-emitting diode	manual on / manual off	no
B1 Fire Pump Room	ventilation (supply + exhaust)	none i.e., continuous	light-emitting diode	manual on / manual off	no
B1 Main Comms Room	ventilation supply only	none i.e., continuous	light-emitting diode	manual on / manual off	no
B2 Sewer Pump Room	ventilation supply only	none i.e., continuous	light-emitting diode	manual on / manual off	no
B1 Cold Water Tank Room	ventilation exhaust only	none i.e., continuous	light-emitting diode	manual on / manual off	no
B1 Rainwater Pump Filtration & Storage Room	ventilation exhaust only	none i.e., continuous	light-emitting diode	manual on / manual off	no
B1 Carpark Exhaust Fan Room	ventilation supply only	none i.e., continuous	light-emitting diode	motion sensors	no

Central energy systems	Type	Specification
Central hot water system (No. 1)	electric heat pump – air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R0.6 (~25 mm); (b) Piping internal to building: R0.6 (~25 mm) (c) Unit Efficiency: 3.0 < COP <= 3.5

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 30 peak kW
Other	-	-

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✔" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✔" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✔" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

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