

Ecove Group
SOPA Site 9 Residential Tower
ESD report for DA submission

Final | 7 March 2016

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number

Arup
Arup Pty Ltd ABN 18 000 966 165



Arup
Level 10 201 Kent Street
PO Box 76 Millers Point
Sydney 2000
Australia
www.arup.com

ARUP

Document Verification

ARUP

Job title		SOPA Site 9 Residential Tower		Job number	
Document title		ESD report for DA submission		File reference	
Document ref					
Revision	Date	Filename	ESD report.docx		
Draft 1	20 th Feb 2016	Description	First draft		
			Prepared by	Checked by	Approved by
		Name	Tim Elgood	Alex Hespe	Tim Elgood
		Signature			
Draft 2	1 st March 2016	Filename	ESD report for DA submission		
		Description			
			Prepared by	Checked by	Approved by
		Name	Tim Elgood	Gladys So	Tim Elgood
		Signature			
Final	7 th March 2016	Filename	ESD report for DA submission		
		Description			
			Prepared by	Checked by	Approved by
		Name	Tim Elgood	Gladys So	Gladys So
		Signature			
Issue		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
Issue Document Verification with Document ☒					

Contents

	Page
1 Introduction	3
1.1 SEARs Requirements	3
1.2 Methodology	3
1.3 Sustainability Management Plan	4
2 BASIX strategy	4
2.1 Water	4
2.2 Energy	4
2.3 Comfort	4
2.4 BASIX strategy	5
3 Sustainability inclusions	7
3.1 Management	7
3.2 Indoor Environmental Quality	7
3.3 Energy	7
3.4 Water	8
3.5 Waste Management	9
3.6 Materials	9
4 Conclusion	10

Appendices

Appendix A:

BASIX Certificates + Approved plans

Executive Summary

The report summarises the approach to achieving the BASIX requirements for energy, water and comfort as well as summarising the other sustainability strategies required to achieve SOPA requirements.

The following points summarise the sustainability strategies integrated into the design:

- **BASIX comfort-** The project is using low e double glazing that has a high visual light transmission and excellent winter and summer performance. The average comfort score for all apartments is 6.5 stars which means they are using 67% less energy to cool and 38% less energy to heat the apartments than the allowable BASIX caps
- **BASIX water-** we have achieved above the 40% improvement on the minimum BASIX water score. We have connected to the WRAMS system and water efficient appliances throughout.
- **BASIX energy-** we have achieved the minimum compliance of a 20% reduction for the energy systems which is difficult to achieve in high rise residential towers. LED and fluorescent lighting has been used throughout with smart automated lighting controls in all common areas and natural ventilation of common areas and corridors.

There has also been the development of a number of additional environmental strategies for waste management and materials selection to ensure a high level of sustainability and indoor environmental quality.

1 Introduction

This section of the report describes the objectives established and the methodology used to achieve the sustainability aspirations for the project.

The residential tower proposed at Site 9 is being developed by Ecove Group and will consist of approximately 229 apartments. Arup have been involved with Ecove Group on developing the initial design as part of the design competition in July 2015 and will have an ongoing role on the project to ensure the sustainability strategies are delivered.

Arup's role on the project is to help develop a residential tower with excellent levels of sustainable performance and high levels of amenity providing by high levels of fresh air, excellent comfort and daylight levels as well as achieving high performance in waste, water energy and material management.

The intent of this report is not just to describe the sustainability strategies integrated into the design but to demonstrate a mechanism to ensure that the strategies are delivered throughout design, construction and eventually operation.

1.1 SEARs Requirements

The SEARS's requirements are:

1. Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) will be incorporated in the design, construction and ongoing operation phases of the development.
2. Include a description of the measures that would be implemented to minimise consumption of resources, water and energy, which details of any proposed alternative water supplies, proposed end uses of potable and non-potable water, demonstration of water sensitive urban design and any water conservation measures.

1.2 Methodology

The report has been set out to respond to the key headings in the SOPA Environmental Guidelines (2008) and the 2030 SOPA Master Plan documents. The report has been set out with the following key headings:

1. BASIX strategy
2. Energy Strategy.
3. Water Strategy.
4. Waste Management Strategy.
5. Materials Selection Strategy.
6. Indoor Environmental Quality.

1.3 Sustainability Management Plan

All the sustainability commitments will be reported in a Sustainability Management Plan (SMP) which will be used to monitor the sustainability performance throughout the design, construction and operation periods of the project.

The SMP will be a report style document that is used throughout the remaining stages of the project list all sustainability requirements and how they intend to be achieved. This will ensure that the sustainability strategies are delivered.

2 BASIX strategy

The BASIX assessment is divided into three sections, each independently measuring the efficiency of the development. These are Water, Thermal Comfort and Energy. BASIX requires a minimum target of 40% for the Water section. A BERS pass or fail is required for the thermal comfort section and a minimum required target of 20% for the energy section.

2.1 Water

The proposed development has achieved the BASIX Water target of 40% and the project exceeds this by achieving 44%. The water usage of the development is calculated based on the number and efficiency of permanent fixtures and appliances such as: taps, showerheads and toilets, the dish washer and clothes washing machine.

2.2 Energy

The proposed development has achieved the energy target of 20% to pass this section. The energy usage of the development is calculated based on the efficiency of fixed appliances that will be used which includes the air conditioning system, hot water system, lighting, exhaust fans and the cook top, oven, and clothes drying facilities.

2.3 Comfort

Thermal Comfort targets are set by the department of planning in the form of heating and cooling caps. The buildings thermal physics is measured using BERS thermal performance assessment tools. This equates an expected level of energy consumption to heat and cool each dwelling per annum expressed in MJ (mega joules)/m² floor area. Each unit has individual heating and cooling caps and a weighted average heating and cooling load for the whole development. The weighted average caps are a lot harder to achieve than the individual unit caps.

The average score for all units means they are using 67% less energy to cool and 47% less energy to heat the units then the allowable BASIX caps.

2.4 BASIX strategy

The following table summarises the BASIX strategy. The BASIX certificates are included in Appendix A.

Mechanical	Item
Bathroom ventilation	- Individual extract system per apartment controlled via light switch with run on timer.
Kitchen canopy	- Each apartment to have individual kitchen extract ducted horizontally to the façade of that unit. Fan to be on/off control.
Air conditioning	- Individual air cooled splits- inverter driven EER 3 to 3.5. Separate zoning/ control of living spaces and bedrooms. - Entrance lobby to be air conditioning.
Laundry ventilation	- Each apartment to have individual horizontal exhaust to façade of that unit. Fan to be connected with the lighting with run on timer.
Ancillary ventilation	- Corridors and entrance lobby naturally ventilated. - All other ancillary mechanical ventilation, if not 24hr/7 day operation to have time/ temperature control depending on function.
Car park ventilation	- Naturally ventilated
Corridors	- Naturally ventilated
Electrical	
Common area lighting	- Fluorescent lighting throughout. Controlled via occupancy sensors.
Apartment lighting	- 80% of lighting in apartments via fluorescent or LED lighting.
Hydraulics	
WRAMS (recycled water)	- Recycled water from WRAMS to be used for non-potable water supply
Hot water	- Domestic hot water via centralised gas fired system with pumped secondary return. Hot water pipework to be insulated to R1.0
Appliances	- 3 star shower heads - 3 star WC flushing - 3 star bathroom taps - 3 star kitchen taps

	- 3 star common area taps and WC's and 3 star common area shower
Architectural	
Dish washer	- 4.5 star energy/ 3.5 star water
Clothes dryer	- 3.5 star energy
Clothes washer	- 4 stars energy/ 4 star water
Oven	- Gas cook top with electric oven.
Insulation	- Façade spandrel R1.5. - Roof R2.0 - Ceiling of apartments 34.01 and 34.07 to be R3.0 with balconies above - Level 7 floor R2.1
Glass	- Doors / windows: - Aluminium framed single clear glazing to internal windows that open to winter garden; U-Value: 6.6 (equal to or lower than) SHGC: 0.69 (+ or – 10%) - Aluminium framed double clear glazing to curtain walls & glazing to balcony edge; U-Value: 4.4 (equal to or lower than) SHGC: 0.5 (+ or – 10%) Given values are NFRC, total window values
-	Gearless traction with VVVF motor.

3 Sustainability inclusions

The project demonstrates a number of sustainability inclusions that are over and above the minimum code compliance requirements.

3.1 Management

- Provision of a waste management plan and a target of 60% recycling of construction waste.
- A commitment to provide ongoing building tuning of services throughout the first year.
- Arup are accredited Green Star professionals.
- Building user's guides are being developed to include descriptions on the sustainable features of the project.

3.2 Indoor Environmental Quality

- Double glazing low e glass with high visual light transmission and good winter and summer comfort.
- Excellent noise level attenuation with double glazing.
- Low VOC paints have been specified with Low Sheen 1 gram per litre - TVOC.
- Low VOC carpets- natural wool and low TVOC content tested at less than 0.1mg/m³.
- Natural ventilation of common area corridors.
- Louvre's on winter gardens for windy corner apartments to improve amenity and usage of the balconies.

3.3 Energy

- Natural ventilation of common area corridors via louvers'.
- Efficient dishwashers and dryers/ clothes washers provided throughout.
- BERS rating for BASIX achieving 67% less energy to cool and 47% less energy to heat the units than the allowable BASIX caps.
- High efficiency Gas fired hot water throughout.
- LED and fluorescent lighting throughout with occupancy sensors in common areas
- Inverter controlled zoned AC control to apartments.
- Dedicated ventilation systems for WC's and kitchens rather than centralised systems that run 24 hours a day/ 7 days a week.
-

The highlighted plan below indicates where there is single glazing and double glazing.



	Double glazing
	Single glazing

3.4 Water

- Recycled water from WRAMS to be used for non-potable water supply.
- Water efficient appliances throughout: 3 star shower heads, 3 star WC flushing, 3 star bathroom taps, 3 star kitchen taps, 3 star common area taps and WC's and 3 star common area shower.
- 3.5 star dishwasher.
- 4 star clothes washer.
- Air cooled air conditioning- no cooling towers used on the project.

3.5 Waste Management

- Waste chute for general waste.
- Recycling waste facilities provided on each floor.
- Any green waste will be collected and removed from site and recycled by the maintenance contractor.

3.6 Materials

- All structural steel work, reo bars and mesh will have post-consumer recycled content.
- We are assessing a number of green concrete mixes with lower cement content that does not impact the construction programme.
- Use of lower embodied Hebel walls instead of concrete block work where possible.
- All timber will be sourced from environmentally- responsible forest management practices.
- Reduction in mechanical ventilation to corridor spaces due to natural ventilation.

4 Conclusion

The report summarises the approach to achieving the BASIX requirements for energy, water and comfort as well as summarising the other sustainability strategies required to achieve SOPA requirements.

The project achieves the minimum BASIX requirements as well as integrating a number of additional sustainability initiatives in excess of the minimum code requirements.

Appendix A: BASIX certificates and approved plans

Appendix A

BASIX Certificates + Approved plans

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 703663M

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 18/09/2014 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Monday, 07 March 2016

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	Site 9
Street address	3 Olympic Boulevard Sydney Olympic Park 2127
Local Government Area	Auburn Council
Plan type and plan number	deposited 1192085
Lot no.	2004
Section no.	-
No. of residential flat buildings	1
No. of units in residential flat buildings	229
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Project score

Water	✓ 53	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 20	Target 20

Water score comprises:

- Sydney Olympic Park Authority reticulated alternative water: 12.3
- Other water efficiency commitments: 40.7

Certificate Prepared by

Name / Company Name: Arup Pty Ltd

ABN (if applicable): 18 000 966 165

Description of project

Project address

Project name	Site 9
Street address	3 Olympic Boulevard Sydney Olympic Park 2127
Local Government Area	Auburn Council
Plan type and plan number	deposited 1192085
Lot no.	2004
Section no.	-

Project type

No. of residential flat buildings	1
No. of units in residential flat buildings	229
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Site details

Site area (m ²)	3437
Roof area (m ²)	940
Non-residential floor area (m ²)	2363.0
Residential car spaces	287
Non-residential car spaces	63

Common area landscape

Common area lawn (m ²)	123.0
Common area garden (m ²)	603.0
Area of indigenous or low water use species (m ²)	0.0

Assessor details

Assessor number	BDAV/12/1473
Certificate number	14733982
Climate zone	56

Project score

Water	✓ 53	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 20	Target 20

Water score comprises:

- Sydney Olympic Park Authority reticulated alternative water: 12.3
- Other water efficiency commitments: 40.7

Description of project

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

Residential flat buildings - Residential Tower, 229 dwellings, 38 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
7.01	2	91.0	0.0	0.0	0.0
7.05	2	70.0	0.0	0.0	0.0
8.03	2	75.0	0.0	0.0	0.0
9.01	2	77.0	6.0	0.0	0.0
9.05	1	55.0	0.0	0.0	0.0
10.02	1	52.0	0.0	0.0	0.0
10.06	1	55.0	0.0	0.0	0.0
11.02	1	52.0	0.0	0.0	0.0
11.06	1	55.0	0.0	0.0	0.0
12.02	1	52.0	0.0	0.0	0.0
12.06	1	55.0	0.0	0.0	0.0
13.02	1	52.0	0.0	0.0	0.0
13.06	1	55.0	0.0	0.0	0.0
14.02	1	52.0	0.0	0.0	0.0
14.06	1	55.0	0.0	0.0	0.0
15.02	1	52.0	0.0	0.0	0.0
15.06	1	55.0	0.0	0.0	0.0
16.02	1	52.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
7.02	2	82.0	0.0	0.0	0.0
7.06	2	77.0	6.0	0.0	0.0
8.04	1	55.0	0.0	0.0	0.0
9.02	2	83.0	0.0	0.0	0.0
9.06	2	70.0	0.0	0.0	0.0
10.03	2	83.0	0.0	0.0	0.0
10.07	2	70.0	0.0	0.0	0.0
11.03	2	83.0	0.0	0.0	0.0
11.07	2	70.0	0.0	0.0	0.0
12.03	2	83.0	0.0	0.0	0.0
12.07	2	70.0	0.0	0.0	0.0
13.03	2	83.0	0.0	0.0	0.0
13.07	2	70.0	0.0	0.0	0.0
14.03	2	83.0	0.0	0.0	0.0
14.07	2	70.0	0.0	0.0	0.0
15.03	2	83.0	0.0	0.0	0.0
15.07	2	70.0	0.0	0.0	0.0
16.03	2	83.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
7.03	2	75.0	0.0	0.0	0.0
8.01	2	77.0	6.0	0.0	0.0
8.05	2	70.0	0.0	0.0	0.0
9.03	2	82.0	0.0	0.0	0.0
9.07	2	77.0	6.0	0.0	0.0
10.04	2	82.0	0.0	0.0	0.0
10.08	2	77.0	6.0	0.0	0.0
11.04	2	82.0	0.0	0.0	0.0
11.08	2	77.0	6.0	0.0	0.0
12.04	2	82.0	0.0	0.0	0.0
12.08	2	77.0	6.0	0.0	0.0
13.04	2	82.0	0.0	0.0	0.0
13.08	2	77.0	6.0	0.0	0.0
14.04	2	82.0	0.0	0.0	0.0
14.08	2	77.0	6.0	0.0	0.0
15.04	3	103.0	0.0	0.0	0.0
15.08	2	77.0	6.0	0.0	0.0
16.04	3	103.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
7.04	1	55.0	0.0	0.0	0.0
8.02	2	82.0	0.0	0.0	0.0
8.06	2	77.0	6.0	0.0	0.0
9.04	2	75.0	0.0	0.0	0.0
10.01	2	77.0	6.0	0.0	0.0
10.05	2	75.0	0.0	0.0	0.0
11.01	2	77.0	6.0	0.0	0.0
11.05	2	75.0	0.0	0.0	0.0
12.01	2	77.0	6.0	0.0	0.0
12.05	2	75.0	0.0	0.0	0.0
13.01	2	77.0	6.0	0.0	0.0
13.05	2	75.0	0.0	0.0	0.0
14.01	2	77.0	6.0	0.0	0.0
14.05	2	75.0	0.0	0.0	0.0
15.01	2	77.0	6.0	0.0	0.0
15.05	1	55.0	0.0	0.0	0.0
16.01	2	77.0	6.0	0.0	0.0
16.05	1	55.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
16.06	1	55.0	0.0	0.0	0.0
17.02	1	52.0	0.0	0.0	0.0
17.06	1	55.0	0.0	0.0	0.0
18.02	1	52.0	0.0	0.0	0.0
18.06	1	55.0	0.0	0.0	0.0
19.02	1	52.0	0.0	0.0	0.0
19.06	1	55.0	0.0	0.0	0.0
20.01	2	77.0	6.0	0.0	0.0
20.05	1	55.0	0.0	0.0	0.0
21.01	2	77.0	6.0	0.0	0.0
21.05	1	55.0	0.0	0.0	0.0
22.02	1	52.0	0.0	0.0	0.0
22.06	1	55.0	0.0	0.0	0.0
23.02	1	52.0	0.0	0.0	0.0
23.06	1	55.0	0.0	0.0	0.0
24.02	1	52.0	0.0	0.0	0.0
24.06	1	55.0	0.0	0.0	0.0
25.02	1	52.0	0.0	0.0	0.0
25.06	1	55.0	0.0	0.0	0.0
26.02	1	52.0	0.0	0.0	0.0
26.06	1	55.0	0.0	0.0	0.0
27.02	2	52.0	0.0	0.0	0.0
27.06	2	76.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
16.07	2	70.0	0.0	0.0	0.0
17.03	2	83.0	0.0	0.0	0.0
17.07	2	70.0	0.0	0.0	0.0
18.03	2	83.0	0.0	0.0	0.0
18.07	2	70.0	0.0	0.0	0.0
19.03	2	83.0	0.0	0.0	0.0
19.07	2	70.0	0.0	0.0	0.0
20.02	1	52.0	0.0	0.0	0.0
20.06	1	55.0	0.0	0.0	0.0
21.02	1	52.0	0.0	0.0	0.0
21.06	1	55.0	0.0	0.0	0.0
22.03	2	83.0	0.0	0.0	0.0
22.07	2	70.0	0.0	0.0	0.0
23.03	2	83.0	0.0	0.0	0.0
23.07	2	70.0	0.0	0.0	0.0
24.03	2	83.0	0.0	0.0	0.0
24.07	2	70.0	0.0	0.0	0.0
25.03	2	83.0	0.0	0.0	0.0
25.07	2	70.0	0.0	0.0	0.0
26.03	2	83.0	0.0	0.0	0.0
26.07	2	70.0	0.0	0.0	0.0
27.03	2	83.0	0.0	0.0	0.0
27.07	2	77.0	6.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
16.08	2	77.0	6.0	0.0	0.0
17.04	3	103.0	0.0	0.0	0.0
17.08	2	77.0	6.0	0.0	0.0
18.04	3	103.0	0.0	0.0	0.0
18.08	2	77.0	6.0	0.0	0.0
19.04	3	103.0	0.0	0.0	0.0
19.08	2	77.0	6.0	0.0	0.0
20.03	2	83.0	0.0	0.0	0.0
20.07	2	70.0	0.0	0.0	0.0
21.03	2	83.0	0.0	0.0	0.0
21.07	2	70.0	0.0	0.0	0.0
22.04	2	103.0	0.0	0.0	0.0
22.08	2	77.0	6.0	0.0	0.0
23.04	2	103.0	0.0	0.0	0.0
23.08	2	77.0	6.0	0.0	0.0
24.04	3	103.0	0.0	0.0	0.0
24.08	2	77.0	6.0	0.0	0.0
25.04	3	103.0	0.0	0.0	0.0
25.08	2	77.0	6.0	0.0	0.0
26.04	3	103.0	0.0	0.0	0.0
26.08	2	77.0	6.0	0.0	0.0
27.04	2	103.0	0.0	0.0	0.0
28.01	2	77.0	6.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
17.01	2	77.0	6.0	0.0	0.0
17.05	1	55.0	0.0	0.0	0.0
18.01	2	77.0	6.0	0.0	0.0
18.05	1	55.0	0.0	0.0	0.0
19.01	2	77.0	6.0	0.0	0.0
19.05	1	55.0	0.0	0.0	0.0
20.01	2	77.0	6.0	0.0	0.0
20.04	3	103.0	0.0	0.0	0.0
20.08	2	77.0	6.0	0.0	0.0
21.04	2	103.0	0.0	0.0	0.0
21.08	2	77.0	6.0	0.0	0.0
22.05	1	55.0	0.0	0.0	0.0
23.01	2	77.0	6.0	0.0	0.0
23.05	1	55.0	0.0	0.0	0.0
24.01	2	77.0	6.0	0.0	0.0
24.05	1	55.0	0.0	0.0	0.0
25.01	2	77.0	6.0	0.0	0.0
25.05	1	55.0	0.0	0.0	0.0
26.01	2	77.0	6.0	0.0	0.0
26.05	1	55.0	0.0	0.0	0.0
27.01	2	77.0	6.0	0.0	0.0
27.05	3	106.0	0.0	0.0	0.0
28.02	1	52.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
28.03	2	83.0	0.0	0.0	0.0
28.07	2	77.0	6.0	0.0	0.0
29.04	3	103.0	0.0	0.0	0.0
30.01	2	77.0	6.0	0.0	0.0
30.05	3	106.0	0.0	0.0	0.0
31.02	1	52.0	0.0	0.0	0.0
31.06	2	76.0	0.0	0.0	0.0
32.03	2	83.0	0.0	0.0	0.0
32.07	2	77.0	6.0	0.0	0.0
33.04	3	103.0	0.0	0.0	0.0
34.01	2	77.0	6.0	0.0	0.0
34.05	3	106.0	0.0	0.0	0.0
35.02	1	52.0	0.0	0.0	0.0
35.06	2	76.0	0.0	0.0	0.0
36.03	4 or more bedrooms	149.0	0.0	0.0	0.0
37.03	4 or more bedrooms	149.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
28.04	3	103.0	0.0	0.0	0.0
29.01	2	77.0	6.0	0.0	0.0
29.05	3	106.0	0.0	0.0	0.0
30.02	1	52.0	0.0	0.0	0.0
30.06	2	76.0	0.0	0.0	0.0
31.03	2	83.0	0.0	0.0	0.0
31.07	2	77.0	6.0	0.0	0.0
32.04	3	103.0	0.0	0.0	0.0
33.01	2	77.0	6.0	0.0	0.0
33.05	3	106.0	0.0	0.0	0.0
34.02	1	52.0	0.0	0.0	0.0
34.06	2	76.0	0.0	0.0	0.0
35.03	2	83.0	0.0	0.0	0.0
35.07	2	77.0	6.0	0.0	0.0
36.04	4 or more bedrooms	163.0	0.0	0.0	0.0
37.04	4 or more bedrooms	163.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
28.05	3	106.0	0.0	0.0	0.0
29.02	1	52.0	0.0	0.0	0.0
29.06	2	76.0	0.0	0.0	0.0
30.03	2	83.0	0.0	0.0	0.0
30.07	2	77.0	6.0	0.0	0.0
31.04	3	103.0	0.0	0.0	0.0
32.01	2	77.0	6.0	0.0	0.0
32.05	3	106.0	0.0	0.0	0.0
33.02	1	52.0	0.0	0.0	0.0
33.06	2	76.0	0.0	0.0	0.0
34.03	2	83.0	0.0	0.0	0.0
34.07	2	77.0	6.0	0.0	0.0
35.04	3	103.0	0.0	0.0	0.0
36.01	4 or more bedrooms	164.0	0.0	0.0	0.0
37.01	4 or more bedrooms	164.0	0.0	0.0	0.0
38.01	4 or more bedrooms	176.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
28.06	2	76.0	0.0	0.0	0.0
29.03	2	83.0	0.0	0.0	0.0
29.07	2	77.0	6.0	0.0	0.0
30.04	3	103.0	0.0	0.0	0.0
31.01	2	77.0	6.0	0.0	0.0
31.05	3	106.0	0.0	0.0	0.0
32.02	1	52.0	0.0	0.0	0.0
32.06	2	76.0	0.0	0.0	0.0
33.03	2	83.0	0.0	0.0	0.0
33.07	2	77.0	6.0	0.0	0.0
34.04	3	103.0	0.0	0.0	0.0
35.01	2	77.0	6.0	0.0	0.0
35.05	3	106.0	0.0	0.0	0.0
36.02	4 or more bedrooms	150.0	0.0	0.0	0.0
37.02	4 or more bedrooms	150.0	0.0	0.0	0.0
38.02	4 or more bedrooms	191.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
38.03	4 or more bedrooms	186.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
--------------	-----------------	--	--	---	---

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
--------------	-----------------	--	--	---	---

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
--------------	-----------------	--	--	---	---

Description of project

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

Common areas of unit building - Residential Tower

Common area	Floor area (m ²)
Lift car (No.1)	-
Lift car (No.4)	-

Common area	Floor area (m ²)
Lift car (No.2)	-
Residential lobby	116.0

Common area	Floor area (m ²)
Lift car (No.3)	-
Corridors	2129.78

Common areas of the development (non-building specific)

Common area	Floor area (m ²)
Car park area and loading dock	12702.76
Waste rooms	137.0

Common area	Floor area (m ²)
Hot water plant	51.0
Plant/store	402.37

Common area	Floor area (m ²)
Switch rooms	58.05
Plant or service rooms	274.0

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Residential Tower

(a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Comfort

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

2. Commitments for multi-dwelling houses

3. Commitments for single dwelling houses

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

- (i) Water
- (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. 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 - Residential Tower

(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.	✓	✓	✓

	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	3 star (> 7.5 but <= 9 L/min)	3 star	3 star	3 star	-	4.5 star	3.5 star	-	-	-	-	-	-	-

	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	reticulated alternative water supply	-	See central systems	-	yes	-	-	-
None	-		-	-	-	-	-	-

(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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".		✓	

	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 1	individual fan, ducted to façade or roof	interlocked to light	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
32.04, 32.05	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	electric floor heating (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	2	1	yes	yes	yes	yes	0	no
38.02, 38.03	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	electric floor heating (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	4	2	yes	yes	yes	yes	0	yes
36.01, 36.02, 36.03, 36.04, 37.01, 37.02, 37.03, 37.04, 38.01	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	electric floor heating (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	4	2	yes	yes	yes	yes	0	no

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
15.04, 16.04, 17.04, 18.04, 19.04, 24.04, 25.04, 26.04, 27.05, 28.04, 28.05, 29.04, 29.05, 30.04, 30.05, 31.04, 31.05, 33.04, 33.05, 34.04, 34.05, 35.04, 35.05	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	electric floor heating (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	3	2	yes	yes	yes	yes	0	no

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
7.01, 7.06, 8.01, 8.06, 9.01, 9.07, 10.01, 10.08, 11.01, 11.08, 12.01, 13.01, 14.01, 15.01, 15.08, 16.01, 16.08, 17.01, 17.08, 18.01, 18.08, 19.01, 19.08, 20.01, 20.01, 20.08, 21.01, 21.08, 22.08, 23.01, 23.08, 24.01, 24.08, 25.01, 25.08, 26.01, 27.01, 27.07, 28.01,	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	2	1	yes	yes	yes	yes	0	yes

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
28.07, 29.01, 29.07, 30.01, 30.07, 31.01, 31.07, 32.01, 32.07, 33.01, 33.07, 34.01, 34.07, 35.01, 35.07												

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
7.02, 7.03, 7.04, 7.05, 8.02, 8.03, 8.04, 8.05, 9.02, 9.03, 9.04, 9.05, 9.06, 10.02, 10.03, 10.04, 10.05, 10.06, 10.07, 11.02, 11.03, 11.04, 11.05, 11.06, 11.07, 12.02, 12.03, 12.04, 12.05, 12.06, 12.07, 12.08, 13.02, 13.03, 13.04, 13.05, 13.06, 13.07, 13.08,	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	2	1	yes	yes	yes	yes	0	no

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
14.02,												
14.03,												
14.04,												
14.05,												
14.06,												
14.07,												
14.08,												
15.02,												
15.03,												
15.05,												
15.06,												
15.07,												
16.02,												
16.03,												
16.05,												
16.06,												
16.07,												
17.02,												
17.03,												
17.05,												
17.06,												
17.07,												
18.02,												
18.03,												
18.05,												
18.06,												
18.07,												
19.02,												
19.03,												
19.05,												
19.06,												
19.07,												
20.02,												
20.03,												
20.04,												
20.05,												
20.06,												
20.07,												
21.02,												

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
21.03, 21.04, 21.05, 21.06, 21.07, 22.02, 22.03, 22.04, 22.05, 22.06, 22.07, 23.02, 23.03, 23.04, 23.05, 23.06, 23.07, 24.02, 24.03, 24.05, 24.06, 24.07, 25.02, 25.03, 25.05, 25.06, 25.07, 26.02, 26.03, 26.05, 26.06, 26.07, 26.08, 27.02, 27.03, 27.04, 27.06, 28.02, 28.03,												

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
28.06, 29.02, 29.03, 29.06, 30.02, 30.03, 30.06, 31.02, 31.03, 31.06, 32.02, 32.03, 32.06, 33.02, 33.03, 33.06, 34.02, 34.03, 34.06, 35.02, 35.03, 35.06												

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	gas cooktop & electric oven	-	no	4.5 star	4 star	3.5 star	no	no

(iii) Thermal Comfort	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.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
7.01	66.0	17.0
7.02	41.0	16.0
7.03	19.0	11.0
7.04	22.0	9.0
7.05	18.0	20.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
7.06	64.0	23.0
8.02	33.0	17.0
8.03	8.0	14.0
9.02	26.0	19.0
9.04	10.0	12.0
14.07	12.0	18.0
14.08	63.0	20.0
34.05	16.0	20.0
36.02	17.0	12.0
36.04	43.0	21.0
37.02	18.0	12.0
37.04	44.0	21.0
38.01	55.0	18.0
38.02	32.0	24.0
38.03	53.0	33.0
8.05, 9.06	10.0	21.0
11.01, 13.01	64.0	17.0
11.03, 13.03	20.0	7.0
11.08, 13.08	62.0	20.0
36.01, 37.01	42.0	16.0
36.03, 37.03	21.0	14.0
9.03, 10.04, 12.04	31.0	20.0
10.01, 12.01, 14.01	65.0	17.0
10.03, 12.03, 14.03	18.0	7.0
10.06, 12.06, 14.06	13.0	10.0
11.04, 13.04, 14.04	31.0	21.0
15.08, 17.08, 19.08	63.0	19.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
8.04, 9.05, 11.06, 13.06	13.0	9.0
10.07, 11.07, 12.07, 13.07	11.0	18.0
8.06, 9.01, 9.07, 10.08, 12.08	62.0	21.0
10.05, 11.05, 12.05, 13.05, 14.05	11.0	14.0
16.05, 16.06, 18.05, 18.06, 26.05	15.0	8.0
27.05, 28.05, 29.05, 30.05, 31.05, 32.05, 33.05, 35.05	15.0	20.0
27.06, 28.06, 29.06, 30.06, 31.06, 32.06, 33.06, 34.06, 35.06	16.0	16.0
15.07, 16.07, 17.07, 18.07, 19.07, 20.07, 21.07, 22.07, 23.07, 24.07, 25.07, 26.07	12.0	17.0
21.02, 23.02, 25.02, 27.02, 28.02, 29.02, 30.02, 31.02, 32.02, 33.02, 34.02, 35.02	22.0	8.0
10.02, 11.02, 12.02, 13.02, 14.02, 15.02, 16.02, 17.02, 18.02, 19.02, 20.02, 22.02, 24.02, 26.02	21.0	8.0
8.01, 16.08, 18.08, 20.08, 21.08, 22.08, 23.08, 24.08, 25.08, 26.08, 27.07, 28.07, 29.07, 30.07, 31.07, 32.07, 33.07, 34.07, 35.07	64.0	19.0
15.05, 15.06, 17.05, 17.06, 19.05, 19.06, 20.05, 20.06, 21.05, 21.06, 22.05, 22.06, 23.05, 23.06, 24.05, 24.06, 25.05, 25.06, 26.06	14.0	8.0
15.01, 16.01, 17.01, 18.01, 19.01, 20.01, 20.01, 21.01, 23.01, 24.01, 25.01, 26.01, 27.01, 28.01, 29.01, 30.01, 31.01, 32.01, 33.01, 34.01, 35.01	66.0	16.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
15.03, 16.03, 17.03, 18.03, 19.03, 20.03, 21.03, 22.03, 23.03, 24.03, 25.03, 26.03, 27.03, 28.03, 29.03, 30.03, 31.03, 32.03, 33.03, 34.03, 35.03	21.0	7.0
All other dwellings	22.0	17.0

(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	3 star (> 7.5 but <= 9 L/min)	3 star	3 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Fire sprinkler system (No. 2)	-	-	-

(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	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Lift car (No.1)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.2)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.3)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.4)	-	-	light-emitting diode	connected to lift call button	No
Residential lobby	air conditioning system	time clock or BMS controlled	light-emitting diode	motion sensors	No
Corridors	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	No

Central energy systems	Type	Specification
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 38
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 38
Lift (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 38
Lift (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 38

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

(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	3 star (> 7.5 but ≤ 9 L/min)	3 star	3 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Reticulated alternative water supply	-	Installation of plumbing to make provision for connection to Sydney Olympic Park Authority reticulated alternative water supply.	- irrigation of 726.0 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site
Fire sprinkler system (No. 1)	-	-	-

(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	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Car park area and loading dock	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	zoned switching with motion sensor	No
Hot water plant	ventilation supply only	interlocked to light	fluorescent	motion sensors	No
Switch rooms	ventilation supply only	thermostatically controlled	fluorescent	motion sensors	No
Waste rooms	ventilation exhaust only	-	fluorescent	motion sensors	No
Plant/store	ventilation supply only	interlocked to light	fluorescent	motion sensors	No
Plant or service rooms	ventilation supply only	interlocked to light	fluorescent	motion sensors	No

Central energy systems	Type	Specification
Central hot water system (No. 1)	gas instantaneous	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm)

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).



NatHERS Certificate

New Dwelling



6.0 Stars

Simulation Software

Software Name BERS Pro 4.2
Software Version Release 110811/A
Engine Version CHENATH V2.13

Simulation Details

Project Name A-100-unit 8.02_1
Date 21/05/2015
Location HOMEBUSH BAY PC 2127
Climate file climat56.TXT
Adjusted Star Rating 6.0 Stars
Conditioned Area 82.14 m²
Unconditioned Area 0.00 m²
Adjusted Cooling 16.8 MJ/m²
Adjusted Heating 32.9 MJ/m²
Adjusted Total 49.7 MJ/m²

Dwelling Address

DP Number -
Unit Number -
Lot Number -
House Number -
Street Name Site 9
Development Name
Suburb Sydney Olympic Park NSW 2127

Client Details

Name Arup
Phone +61 8 9327 8300 Fax +61 8 9481 1334
Email info@arup.com
Postal Address PO Box 629 West Perth WA 6872 Australia
Street Details Level 7, Wellington Central, 836 Wellington Street West Perth WA 6005 Australia

Assessor Details

Name Tracey Cools
Phone 02 9970 6181 Fax 02 9970 6181
Email admin@efficientliving.com.au
Postal Address
Street Details 13/13 Lagoon Street, Narrabeen NSW 2101

 Energy Rating		Certificate Number 14733982
☐ single-dwelling rating		6.0 stars
☒ multi-unit development (attach listing of ratings)	heating 32 MJ/m ²	
If selected, data specified is the average across the entire development	cooling 15 MJ/m ²	
Recessed downlights confirmation: ☐ Rated with ☒ Rated without		
Assessor Name/Number Tracey Cools VIC/BDAV/12/1473		
Assessor Signature 		Date 07.03.16

Signed by the Assessor..........Date.....07 / 03 / 2016.....

*Tilted roof windows with blinds cannot be modelled using this version of BERSPro.
All windows are modelled with Holland Blinds for regulatory purposes.*

Building Element Details

Project A-100-unit 8.02 Run 1
HOMEBUSH BAY PC 2127 Lat -33.90 Long 151.10 Climate File climat56.TXT

Summary

Conditioned Area	82.1 m²
Unconditioned Area	0.0 m²
Total Floor Area	82.1 m²
Total Glazed Area	27.5 m²
Total External Solid door Area	2.0 m²
Glass to Floor Area	33.5 %
Gross External Wall Area	122.4 m²
Net External Wall Area	92.9 m²

Window

15.7 m²	AWS-04-046a	Architectural Window Systems (Vantage)	Uval 6.60	SHGC 0.69
	Glass	5mm Clear		
	Frame	AWS: Series-517 Aluminium Awning Window - Single Glazed		
11.9 m²	WID-05-024a	Wideline	Uval 4.44	SHGC 0.50
	Glass	4mm Clear/6mm Air Gap/4mm Energy Advantage Low-E		
	Frame	Wideline: Aluminium Bi-fold Door - Single/Double Glazed		

External Wall

14.3 m²	Cavity Panel wider than 70mm	Bulk Insulation R 1.5
44.8 m²	PowerPanel	Bulk Insulation R 1.5
33.8 m²	PowerPanel to neighbour	Bulk Insulation R 1.5

Internal Wall

72.1 m²	Cavity Panel 70mm gap	No Insulation
---------	-----------------------	---------------

External Floor

35.1 m²	Concrete Slab, Unit Below	80/20 Carpet 10mm/Ceramic	No Insulation
9.5 m²	Concrete Slab, Unit Below	Ceramic Tiles 8mm	No Insulation
37.6 m²	Concrete Slab, Unit Below	Carpet 10mm	No Insulation

External Ceiling

82.1 m²	Plasterboard	No Insulation Apartment above
---------	--------------	-------------------------------

Roof (Horizontal area)

82.1 m²	Concrete	No Insulation, Only an Air Gap	0° slope	Skillion roof
---------	----------	--------------------------------	----------	---------------

**Energy Rating**

Certificate Number 14733982

☐ single-dwelling rating

☒ multi-unit development (attach listing of ratings)
If selected, data specified is the average across the entire development

heating 6.0 stars
cooling 32 MJ/m²

cooling 15 MJ/m²

Recessed downlights confirmation: ☐ Rated with ☒ Rated without

Assessor Name/Number Tracey Cools VIC/BDAV/12/1473

Assessor Signature  Date 07.03.16

Thermal Comfort Results

Proposed Residential Development

Sydney Olympic Park Site 9



1 of 7

Issued in accordance with BASIX Thermal Comfort Simulation Method

Certificate # 14733982				Accreditation #				VIC/BDAV/12/1473	
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
7.01	2	91	0	66	17	4.0	0	Yes	R 2.1 insulation to open subfloor and R2.0 insulation to walls adjacent to services and corridors
7.02	2	82	0	41	16	5.5	0	No	R 2.1 insulation to open subfloor
7.03	2	75	0	19	11	7.5	0	No	R 2.1 insulation to open subfloor
7.04	1	55	0	22	9	7.5	0	No	R 2.1 insulation to open subfloor
7.05	2	70	0	18	20	7.0	0	No	R 2.1 insulation to open subfloor
7.06	2	77	6	64	23	4.0	1	Yes	R 2.1 insulation to open subfloor
8.01	2	77	6	64	19	4.0	1	Yes	R2.0 insulation to walls adjacent to services and corridors
8.02	2	82	0	33	17	6.0	0	No	None
8.03	2	75	0	8	14	8.0	0	No	None
8.04	1	55	0	13	9	8.0	0	No	None
8.05	2	70	0	10	21	7.5	0	No	None
8.06	2	77	6	62	21	4.0	1	Yes	None
9.01	2	77	6	62	21	4.0	1	Yes	None
9.02	2	83	0	26	19	6.5	0	No	None
9.03	2	82	0	31	20	6.0	0	No	None
9.04	2	75	0	10	12	8.0	0	No	None
9.05	1	55	0	13	9	8.0	0	No	None
9.06	2	70	0	10	21	7.5	0	No	None
9.07	2	77	6	62	21	4.0	1	Yes	None
10.01	2	77	6	65	17	4.0	1	Yes	None
10.02	1	52	0	21	8	7.5	0	No	None
10.03	2	83	0	18	7	8.0	0	No	None
10.04	2	82	0	31	20	6.0	0	No	None
10.05	2	75	0	11	14	8.0	0	No	None
10.06	1	55	0	13	10	8.0	0	No	None
10.07	2	70	0	11	18	7.5	0	No	None
10.08	2	77	6	62	21	4.0	1	Yes	None
11.01	2	77	6	64	17	4.0	1	Yes	None
11.02	1	52	0	21	8	7.5	0	No	None
11.03	2	83	0	20	7	7.5	0	No	None
11.04	2	82	0	31	21	5.5	0	No	None
11.05	2	75	0	11	14	8.0	0	No	None
11.06	1	55	0	13	9	8.0	0	No	None

Efficient Living

Sustainable Building Consultants

Phone: (02) 9970 6181 Email: admin@efficientliving.com.au Web: www.efficientliving.com.au

Thermal Comfort Results

Proposed Residential Development

Sydney Olympic Park Site 9



2 of 7

Issued in accordance with BASIX Thermal Comfort Simulation Method

Certificate # 14733982				Accreditation #			VIC/BDAV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
11.07	2	70	0	11	18	7.5	0	No	None
11.08	2	77	6	62	20	4.0	1	Yes	None
12.01	2	77	6	65	17	4.0	1	Yes	None
12.02	1	52	0	21	8	7.5	0	No	None
12.03	2	83	0	18	7	8.0	0	No	None
12.04	2	82	0	31	20	6.0	0	No	None
12.05	2	75	0	11	14	8.0	0	No	None
12.06	1	55	0	13	10	8.0	0	No	None
12.07	2	70	0	11	18	7.5	0	No	None
12.08	2	77	6	62	21	4.0	1	Yes	None
13.01	2	77	6	64	17	4.0	1	Yes	None
13.02	1	52	0	21	8	7.5	0	No	None
13.03	2	83	0	20	7	7.5	0	No	None
13.04	2	82	0	31	21	5.5	0	No	None
13.05	2	75	0	11	14	8.0	0	No	None
13.06	1	55	0	13	9	8.0	0	No	None
13.07	2	70	0	11	18	7.5	0	No	None
13.08	2	77	6	62	20	4.0	1	Yes	None
14.01	2	77	6	65	17	4.0	1	Yes	None
14.02	1	52	0	21	8	7.5	0	No	None
14.03	2	83	0	18	7	8.0	0	No	None
14.04	2	82	0	31	21	5.5	0	No	None
14.05	2	75	0	11	14	8.0	0	No	None
14.06	1	55	0	13	10	8.0	0	No	None
14.07	2	70	0	12	18	7.5	0	No	None
14.08	2	77	6	63	20	4.0	1	Yes	None
15.01	2	77	6	66	16	4.0	1	Yes	None
15.02	1	52	0	21	8	7.5	0	No	None
15.03	2	83	0	21	7	7.5	0	No	None
15.04	3	103	0	22	17	7.0	0	No	None
15.05	1	55	0	14	8	8.0	0	No	None
15.06	1	55	0	14	8	8.0	0	No	None
15.07	2	70	0	12	17	7.5	0	No	None
15.08	2	77	6	63	19	4.0	1	Yes	None
16.01	2	77	6	66	16	4.0	1	Yes	None
16.02	1	52	0	21	8	7.5	0	No	None

Efficient Living

Sustainable Building Consultants

Phone: (02) 9970 6181 Email: admin@efficientliving.com.au Web: www.efficientliving.com.au

Thermal Comfort Results

Proposed Residential Development

Sydney Olympic Park Site 9



3 of 7

Issued in accordance with BASIX Thermal Comfort Simulation Method

Certificate # 14733982				Accreditation #			VIC/BDAV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
16.03	2	83	0	21	7	7.5	0	No	None
16.04	3	103	0	22	17	7.0	0	No	None
16.05	1	55	0	15	8	8.0	0	No	None
16.06	1	55	0	15	8	8.0	0	No	None
16.07	2	70	0	12	17	7.5	0	No	None
16.08	2	77	6	64	19	4.0	1	Yes	None
17.01	2	77	6	66	16	4.0	1	Yes	None
17.02	1	52	0	21	8	7.5	0	No	None
17.03	2	83	0	21	7	7.5	0	No	None
17.04	3	103	0	22	17	7.0	0	No	None
17.05	1	55	0	14	8	8.0	0	No	None
17.06	1	55	0	14	8	8.0	0	No	None
17.07	2	70	0	12	17	7.5	0	No	None
17.08	2	77	6	63	19	4.0	1	Yes	None
18.01	2	77	6	66	16	4.0	1	Yes	None
18.02	1	52	0	21	8	7.5	0	No	None
18.03	2	83	0	21	7	7.5	0	No	None
18.04	3	103	0	22	17	7.0	0	No	None
18.05	1	55	0	15	8	8.0	0	No	None
18.06	1	55	0	15	8	8.0	0	No	None
18.07	2	70	0	12	17	7.5	0	No	None
18.08	2	77	6	64	19	4.0	1	Yes	None
19.01	2	77	6	66	16	4.0	1	Yes	None
19.02	1	52	0	21	8	7.5	0	No	None
19.03	2	83	0	21	7	7.5	0	No	None
19.04	3	103	0	22	17	7.0	0	No	None
19.05	1	55	0	14	8	8.0	0	No	None
19.06	1	55	0	14	8	8.0	0	No	None
19.07	2	70	0	12	17	7.5	0	No	None
19.08	2	77	6	63	19	4.0	1	Yes	None
20.01	2	77	6	66	16	4.0	1	Yes	None
20.02	1	52	0	21	8	7.5	0	No	None
20.03	2	83	0	21	7	7.5	0	No	None
20.04	3	103	0	22	17	7.0	0	No	None
20.05	1	55	0	14	8	8.0	0	No	None
20.06	1	55	0	14	8	8.0	0	No	None

Efficient Living

Sustainable Building Consultants

Phone: (02) 9970 6181 Email: admin@efficientliving.com.au Web: www.efficientliving.com.au

Thermal Comfort Results

Proposed Residential Development

Sydney Olympic Park Site 9



4 of 7

Issued in accordance with BASIX Thermal Comfort Simulation Method

Certificate # 14733982				Accreditation #			VIC/BDAV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
20.07	2	70	0	12	17	7.5	0	No	None
20.08	2	77	6	64	19	4.0	1	Yes	None
21.01	2	77	6	66	16	4.0	1	Yes	None
21.02	1	52	0	22	8	7.5	0	No	None
21.03	2	83	0	21	7	7.5	0	No	None
21.04	3	103	0	22	17	6.5	0	No	None
21.05	1	55	0	14	8	8.0	0	No	None
21.06	1	55	0	14	8	8.0	0	No	None
21.07	2	70	0	12	17	7.5	0	No	None
21.08	2	77	6	64	19	4.0	1	Yes	None
22.01	2	77	6	66	16	4.0	1	Yes	None
22.02	1	52	0	21	8	7.5	0	No	None
22.03	2	83	0	21	7	7.5	0	No	None
22.04	3	103	0	22	17	7.0	0	No	None
22.05	1	55	0	14	8	8.0	0	No	None
22.06	1	55	0	14	8	8.0	0	No	None
22.07	2	70	0	12	17	7.5	0	No	None
22.08	2	77	6	64	19	4.0	1	Yes	None
23.01	2	77	6	66	16	4.0	1	Yes	None
23.02	1	52	0	22	8	7.5	0	No	None
23.03	2	83	0	21	7	7.5	0	No	None
23.04	3	103	0	22	17	6.5	0	No	None
23.05	1	55	0	14	8	8.0	0	No	None
23.06	1	55	0	14	8	8.0	0	No	None
23.07	2	70	0	12	17	7.5	0	No	None
23.08	2	77	6	64	19	4.0	1	Yes	None
24.01	2	77	6	66	16	4.0	1	Yes	None
24.02	1	52	0	21	8	7.5	0	No	None
24.03	2	83	0	21	7	7.5	0	No	None
24.04	3	103	0	22	17	7.0	0	No	None
24.05	1	55	0	14	8	8.0	0	No	None
24.06	1	55	0	14	8	8.0	0	No	None
24.07	2	70	0	12	17	7.5	0	No	None
24.08	2	77	6	64	19	4.0	1	Yes	None
25.01	2	77	6	66	16	4.0	1	Yes	None
25.02	1	52	0	22	8	7.5	0	No	None

Efficient Living

Sustainable Building Consultants

Phone: (02) 9970 6181 Email: admin@efficientliving.com.au Web: www.efficientliving.com.au

Thermal Comfort Results

Proposed Residential Development

Sydney Olympic Park Site 9



5 of 7

Issued in accordance with BASIX Thermal Comfort Simulation Method

Certificate # 14733982				Accreditation #			VIC/BDAV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
25.03	2	83	0	21	7	7.5	0	No	None
25.04	3	103	0	22	17	6.5	0	No	None
25.05	1	55	0	14	8	8.0	0	No	None
25.06	1	55	0	14	8	8.0	0	No	None
25.07	2	70	0	12	17	7.5	0	No	None
25.08	2	77	6	64	19	4.0	1	Yes	None
26.01	2	77	6	66	16	4.0	1	Yes	None
26.02	1	52	0	21	8	7.5	0	No	None
26.03	2	83	0	21	7	7.5	0	No	None
26.04	3	103	0	22	17	7.0	0	No	None
26.05	1	55	0	15	8	8.0	0	No	None
26.06	1	55	0	14	8	8.0	0	No	None
26.07	2	70	0	12	17	7.5	0	No	None
26.08	2	77	6	64	19	4.0	1	Yes	None
27.01	2	77	6	66	16	4.0	1	Yes	None
27.02	1	52	0	22	8	7.5	0	No	None
27.03	2	83	0	21	7	7.5	0	No	None
27.04	3	103	0	22	17	6.5	0	No	None
27.05	3	106	0	15	20	7.0	0	No	None
27.06	2	76	0	16	16	7.5	0	No	None
27.07	2	77	6	64	19	4.0	1	Yes	None
28.01	2	77	6	66	16	4.0	1	Yes	None
28.02	1	52	0	22	8	7.5	0	No	None
28.03	2	83	0	21	7	7.5	0	No	None
28.04	3	103	0	22	17	6.5	0	No	None
28.05	3	106	0	15	20	7.0	0	No	None
28.06	2	76	0	16	16	7.5	0	No	None
28.07	2	77	6	64	19	4.0	1	Yes	None
29.01	2	77	6	66	16	4.0	1	Yes	None
29.02	1	52	0	22	8	7.5	0	No	None
29.03	2	83	0	21	7	7.5	0	No	None
29.04	3	103	0	22	17	6.5	0	No	None
29.05	3	106	0	15	20	7.0	0	No	None
29.06	2	76	0	16	16	7.5	0	No	None
29.07	2	77	6	64	19	4.0	1	Yes	None
30.01	2	77	6	66	16	4.0	1	Yes	None

Efficient Living

Sustainable Building Consultants

Phone: (02) 9970 6181 Email: admin@efficientliving.com.au Web: www.efficientliving.com.au

Thermal Comfort Results

Proposed Residential Development

Sydney Olympic Park Site 9



6 of 7

Issued in accordance with BASIX Thermal Comfort Simulation Method

Certificate # 14733982				Accreditation #			VIC/BDAV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
30.02	1	52	0	22	8	7.5	0	No	None
30.03	2	83	0	21	7	7.5	0	No	None
30.04	3	103	0	22	17	6.5	0	No	None
30.05	3	106	0	15	20	7.0	0	No	None
30.06	2	76	0	16	16	7.5	0	No	None
30.07	2	77	6	64	19	4.0	1	Yes	None
31.01	2	77	6	66	16	4.0	1	Yes	None
31.02	1	52	0	22	8	7.5	0	No	None
31.03	2	83	0	21	7	7.5	0	No	None
31.04	3	103	0	22	17	6.5	0	No	None
31.05	3	106	0	15	20	7.0	0	No	None
31.06	2	76	0	16	16	7.5	0	No	None
31.07	2	77	6	64	19	4.0	1	Yes	None
32.01	2	77	6	66	16	4.0	1	Yes	None
32.02	1	52	0	22	8	7.5	0	No	None
32.03	2	83	0	21	7	7.5	0	No	None
32.04	3	103	0	22	17	6.5	0	No	None
32.05	3	106	0	15	20	7.0	0	No	None
32.06	2	76	0	16	16	7.5	0	No	None
32.07	2	77	6	64	19	4.0	1	Yes	None
33.01	2	77	6	66	16	4.0	1	Yes	None
33.02	1	52	0	22	8	7.5	0	No	None
33.03	2	83	0	21	7	7.5	0	No	None
33.04	3	103	0	22	17	6.5	0	No	None
33.05	3	106	0	15	20	7.0	0	No	None
33.06	2	76	0	16	16	7.5	0	No	None
33.07	2	77	6	64	19	4.0	1	Yes	None
34.01	2	77	6	66	16	4.0	1	Yes	R3.0 insulation to ceiling with balcony above
34.02	1	52	0	22	8	7.5	0	No	None
34.03	2	83	0	21	7	7.5	0	No	None
34.04	3	103	0	22	17	6.5	0	No	None
34.05	3	106	0	16	20	7.0	0	No	None
34.06	2	76	0	16	16	7.5	0	No	None
34.07	2	77	6	64	19	4.0	1	Yes	R3.0 insulation to ceiling with balcony above
35.01	2	77	6	66	16	4.0	1	Yes	None

Efficient Living

Sustainable Building Consultants

Phone: (02) 9970 6181 Email: admin@efficientliving.com.au Web: www.efficientliving.com.au

Thermal Comfort Results

Proposed Residential Development

Sydney Olympic Park Site 9



7 of 7

Issued in accordance with BASIX Thermal Comfort Simulation Method

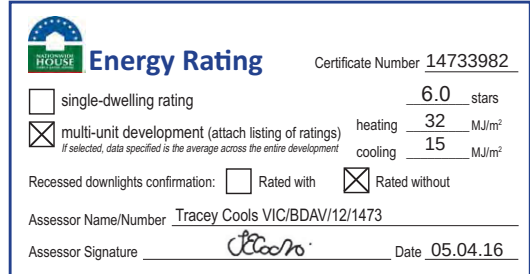
Certificate # 14733982				Accreditation #			VIC/BDAV/12/1473		
Thermal performance specifications									
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Window in Bathroom	Window in Kitchen	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)				
35.02	1	52	0	22	8	7.5	0	No	None
35.03	2	83	0	21	7	7.5	0	No	None
35.04	3	103	0	22	17	6.5	0	No	None
35.05	3	106	0	15	20	7.0	0	No	None
35.06	2	76	0	16	16	7.5	0	No	None
35.07	2	77	6	64	19	4.0	1	Yes	None
36.01	4	156	0	42	16	5.5	0	No	None
36.02	4	150	0	17	12	7.5	0	No	None
36.03	4	149	0	21	14	7.0	0	No	None
36.04	4	163	0	43	21	5.0	1	No	None
37.01	4	156	0	42	16	5.5	0	No	None
37.02	4	150	0	18	12	7.5	0	No	None
37.03	4	149	0	21	14	7.0	0	No	None
37.04	4	163	0	44	21	5.0	1	No	None
38.01	4	170	0	55	18	4.5	1	No	None
38.02	4	191	0	32	24	5.5	0	No	None
38.03	4	186	0	53	33	4.0	0	No	None

Efficient Living

Sustainable Building Consultants

Phone: (02) 9970 6181 Email: admin@efficientliving.com.au Web: www.efficientliving.com.au

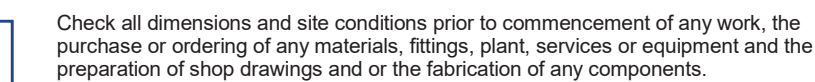
DA Drawing List			
Drawing Number	Drawing Title		Current Revision
_DA00 TITLES			
DA00.000	Cover Sheet and Drawing List		A
_DA01 SITE			
DA01.001		Site Plan	A
DA01.002	Proximity to Rail Corridor	Site Plan + Building Envelope	A
DA01.003	Proximity to Rail Corridor	Aerial Photograph	A
_DA02 KEY			
DA02.001	General Arrangement Plan	Ground	A
DA02.002	General Arrangement Plan	Level 02	A
DA02.003	General Arrangement Plan	Level 03	A
DA02.004	General Arrangement Plan	Level 04	A
DA02.005	General Arrangement Plan	Level 05	A
DA02.006	General Arrangement Plan	Level 06	A
DA02.007	General Arrangement Plan	Level 07	A
DA02.008	General Arrangement Plan	Level 08	A
DA02.009	General Arrangement Plan	Level 09	A
DA02.010	General Arrangement Plan	Level 10, 12, 14	A
DA02.011	General Arrangement Plan	Level 11, 13	A
DA02.015	General Arrangement Plan	Level 15, 17, 19	A
DA02.016	General Arrangement Plan	Level 16, 18	A
DA02.020	General Arrangement Plan	Level 20, 22, 24, 26	A
DA02.021	General Arrangement Plan	Level 21, 23, 25	A
DA02.027	General Arrangement Plan	Level 27, 29, 31, 33, 35	A
DA02.028	General Arrangement Plan	Level 28, 30, 32, 34	A
DA02.036	General Arrangement Plan	Level 36-37	A
DA02.038	General Arrangement Plan	Level 38	A
DA02.039	General Arrangement Plan	Roof Plan	A
_DA07 ELEVATIONS			
DA07.001	Building Elevations	Southwest	A
DA07.002	Building Elevations	NorthEast	A
DA07.003	Building Elevations	Northwest & Southeast	A
_DA08 SECTIONS			
DA08.001	Building Sections	A-A	A
DA08.002	Building Sections	B-B, C-C	A
_DA10 FACADE DETAILS			
DA10.001	Tower Facade	Conditions 01-04 - Indicative Detail Sections	A
_DA50 SHADOW STUDY			
DA50.001	Shadow Diagrams	Winter Solstice June 21	A



BATESMART™

S11890

Site 9, Sydney Olympic Park



Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing

Glazing
Doors / windows:
 - Aluminium framed **single clear** glazing to internal windows that open to wintergardens
 U-Value: 6.6 (equal to or lower than)
 SHGC: 0.69 (+ or – 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation **to selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete – R2.1 insulation to all units in level 7 with car park below
Concrete – no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX



Site 9, Sydney Olympic Park
3 Olympic Boulevard

Site Plan



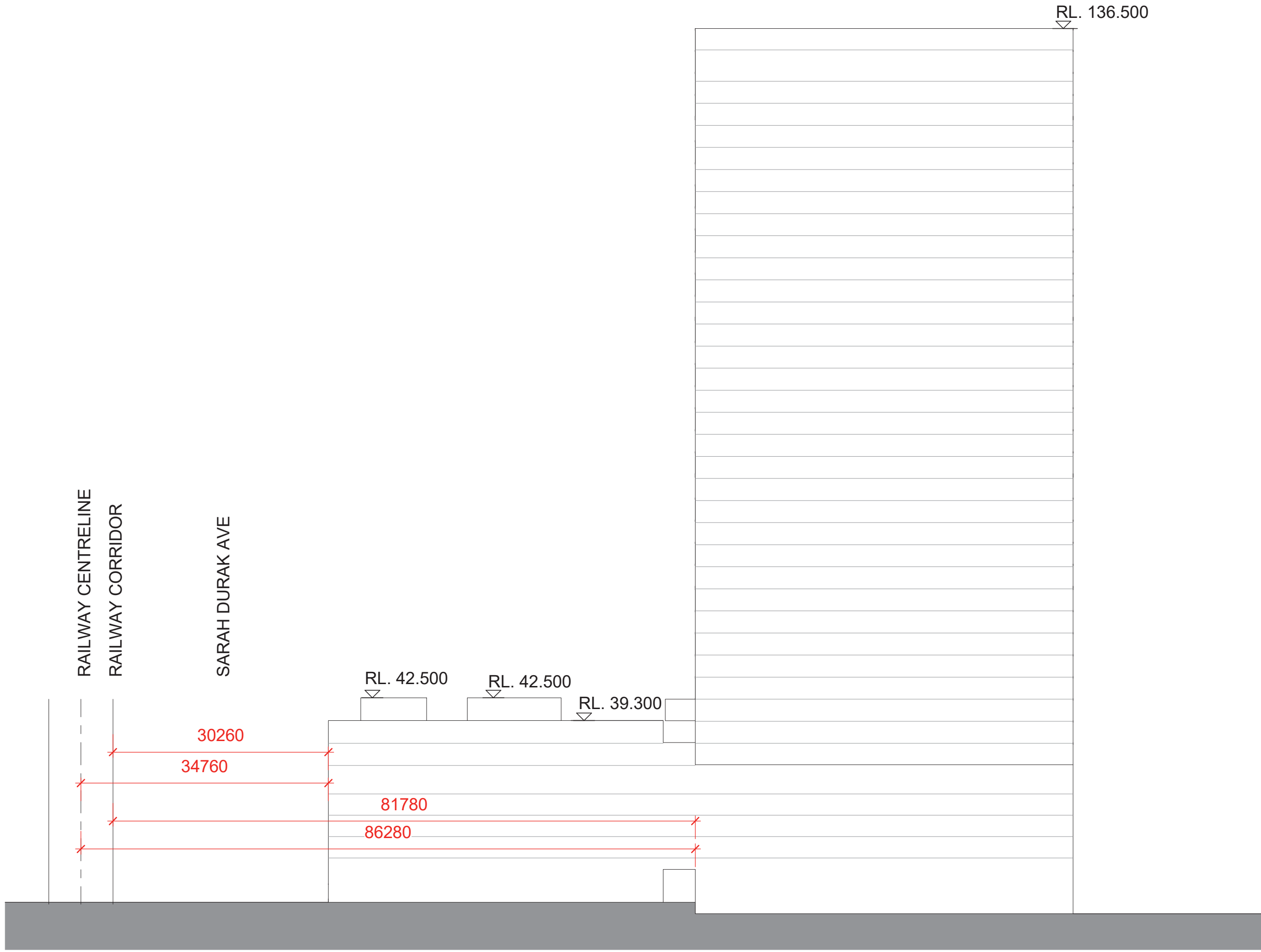
Drawing no.	Revision
DA01.001	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email mel@batessmart.com.au
<http://www.batessmart.com.au>

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email syd@batessmart.com.au
<http://www.batessmart.com.au>

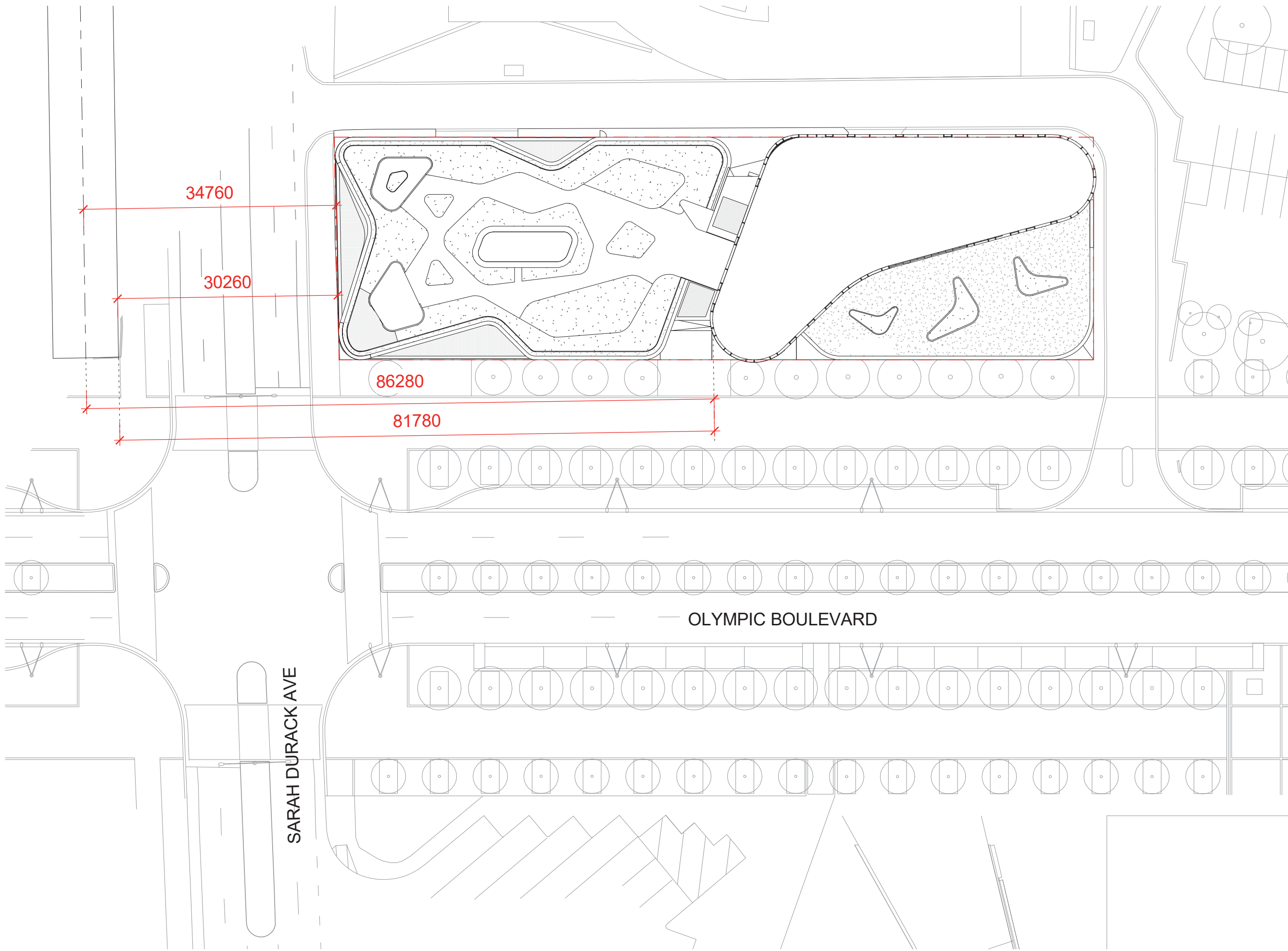
Bates Smart Pty Ltd ABN 70 004 999 400

BATESSMART™



2 Building Envelope

1 : 500



1 Site Plan

1 : 500

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing

Doors / windows:

- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:

Concrete roof - No insulation

Default Colour modelled

Ceiling:

Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:

Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:

Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:

75mm hebel power panel plasterboard lined with R2.0 acoustic insulation **to selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:

Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:

1 & 2 bed apartments - tiles to wet areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system

Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water

Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy

Not required by BASIX

Revision	Date	Description	Initial	Checked
A	01.03.16	Development Application	JS	CP

Client: Ecove



ecove®

Site 9, Sydney Olympic Park 3 Olympic Boulevard

Proximity to Rail Corridor
Site Plan + Building Envelope



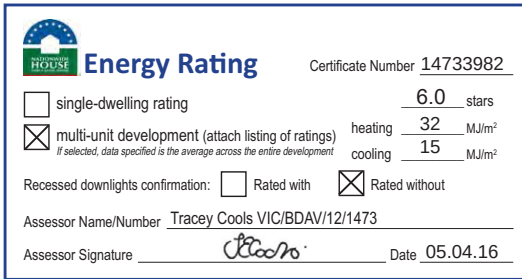
Status	Development Application
Scale	As indicated @ A1
Drawn	Author Checked Checker
Project No.	S11890
Plot Date	1/04/2016 1:00:22 PM
Plot File	

Drawing no.	Revision
DA01.002	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au

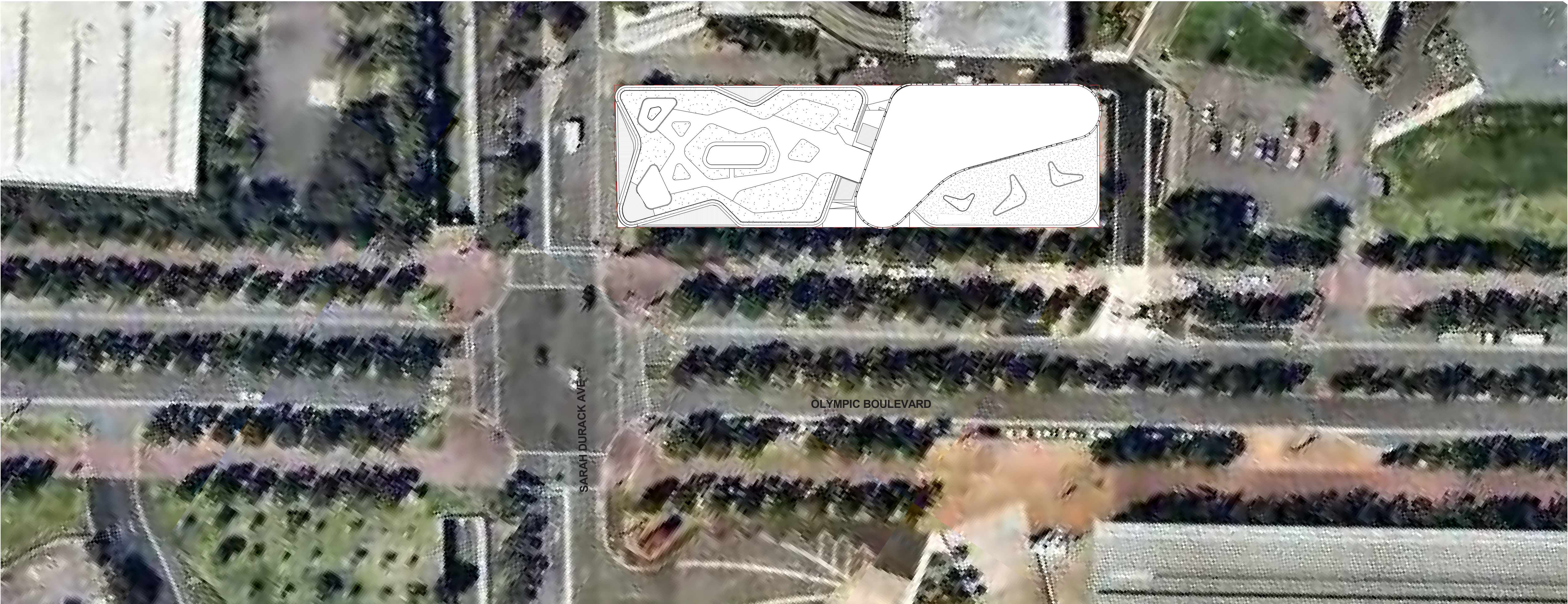
Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400



BATESSMART

C:\Temp\59_BS_ARCH\DA_S111.rvt



Energy Rating

single-dwelling rating

6.0

stars

☒ multi-unit development (attach listing of ratings)

heating

32

MJ/m²

cooling

15

MJ/m²

Rated with

☒ Rated without

Recessed downlights confirmation:

Rated with

☒ Rated without

Assessor Name/Number

Tracey Cooks VIC/RED/121473

Assessor Signature

Date

05.04.16

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing
Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or – 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or – 10%)

Given values are NFRC, total window values

Roof / ceiling insulation
Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation
External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete – R2.1 insulation to all units in level 7 with car park below
Concrete – no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wet areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A

01.03.16

Development Application

JS

CP

Revision

Date

Description

Initial

Checked

Client: Ecove

Site 9, Sydney Olympic Park
3 Olympic Boulevard

Proximity to Rail Corridor
Aerial Photograph

Status	Development Application		
Scale	As indicated	@ A1	
Drawn	Author	Checked	Checker
Project No.	S11890		
Plot Date	1/04/2016 1:00:56 PM		
Plot File			

Drawing no.	Revision
DA01.003	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400

BATESSMART

1 Aerial Photograph

1 : 500

All drawings may not be reproduced or distributed without prior permission from the architect.

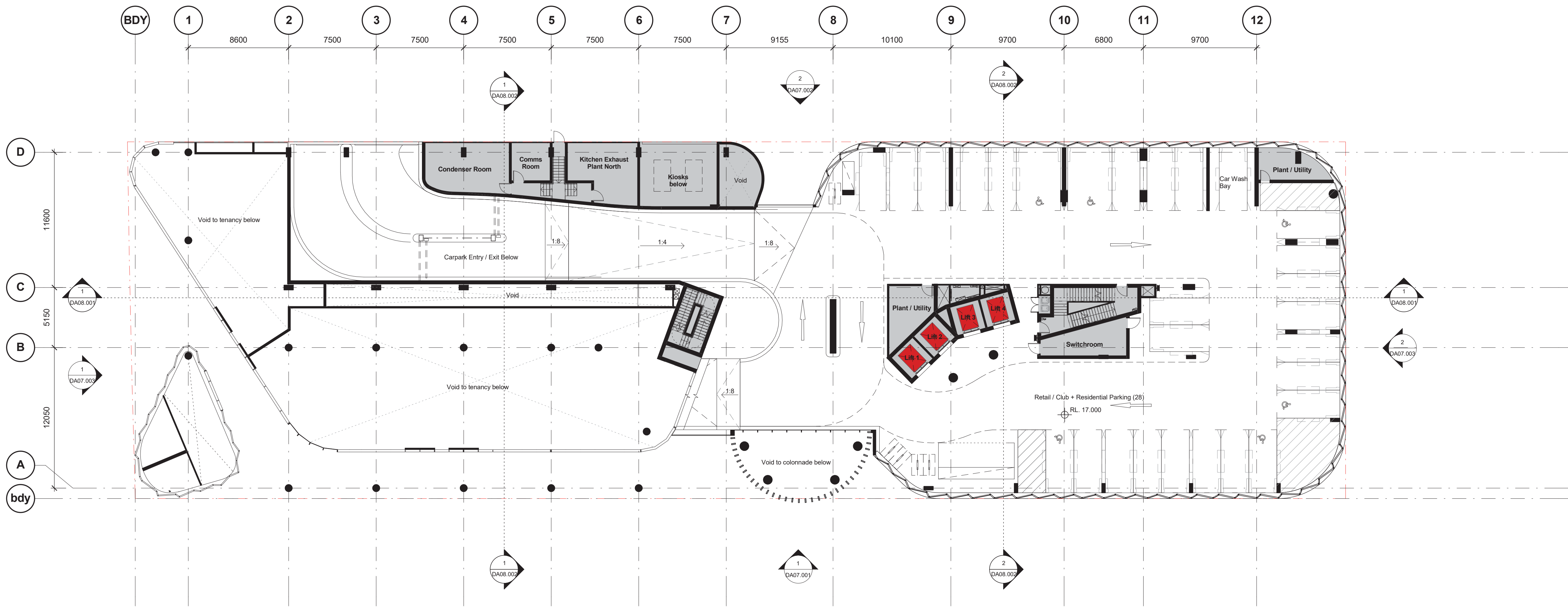


Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email mel@batesmart.com.au
<http://www.batesmart.com.au>

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email syd@batesmart.com.au
<http://www.batesmart.com.au>

BATESSMART™





Legend - General
BG Bulky Goods
Storage Cage

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing
Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wet areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked

Client: Ecove



ecove®

**Site 9, Sydney Olympic Park
3 Olympic Boulevard**

**General Arrangement Plan
Level 02**



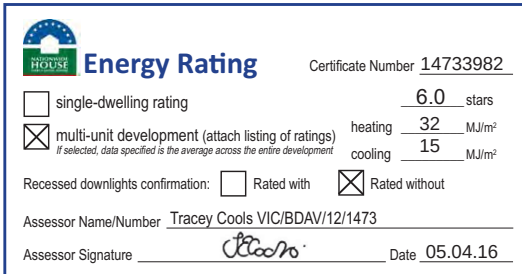
Status	Development Application
Scale	1 : 200 @ A1
Drawn	Author Checked Checker
Project No.	S11890
Plot Date	1/04/2016 3:48:18 PM
Plot File	

Drawing no.	Revision
DA02.002	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email mel@batesmart.com.au
http://www.batesmart.com.au

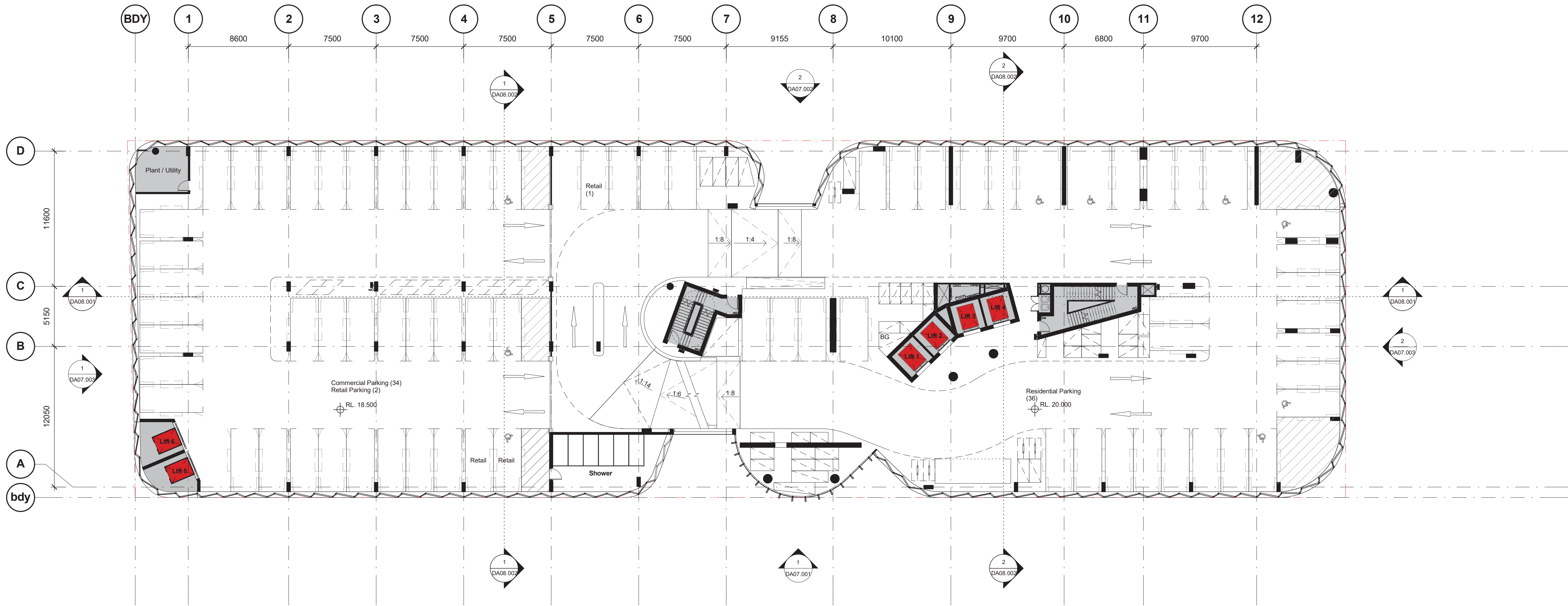
Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400



BATESSMART

C:\Temp\59_BS_ARCH\DA_S11890.dwg



Legend - General
BG Bulky Goods
Storage Cage

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing
Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A 01.03.16 Development Application JS CP
Revision Date Description Initial Checked

Client: Ecove



Site 9, Sydney Olympic Park 3 Olympic Boulevard

General Arrangement Plan Level 03

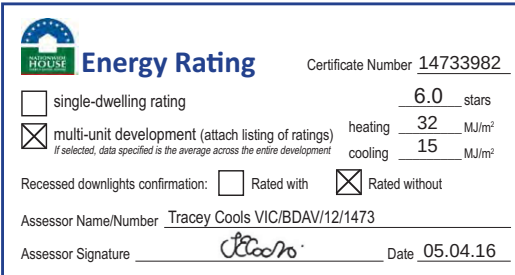
Status	Development Application
Scale	1 : 200 @ A1
Drawn	Author Checked Checker
Project No.	S11890
Plot Date	1/04/2016 1:02:09 PM
Plot File	

Drawing no. Revision
DA02.003 A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400



BATESSMART

C:\temp\SS_B3_ARCH\DA_PAN1.rvt

Legend - General

BG Bulky Goods
Storage Cage

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing

Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system

Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water

Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy

Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client: Ecove				



Site 9, Sydney Olympic Park
3 Olympic Boulevard

General Arrangement Plan
Level 04



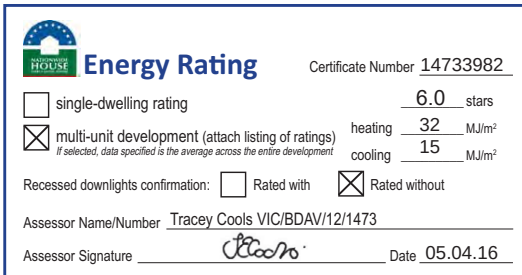
Status	Development Application		
Scale	1 : 200	@	A1
Drawn	Author	Checked	Checker
Project No.	S11890		
Plot Date	1/04/2016 3:48:39 PM		
Plot File			

Drawing no.	Revision
DA02.004	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

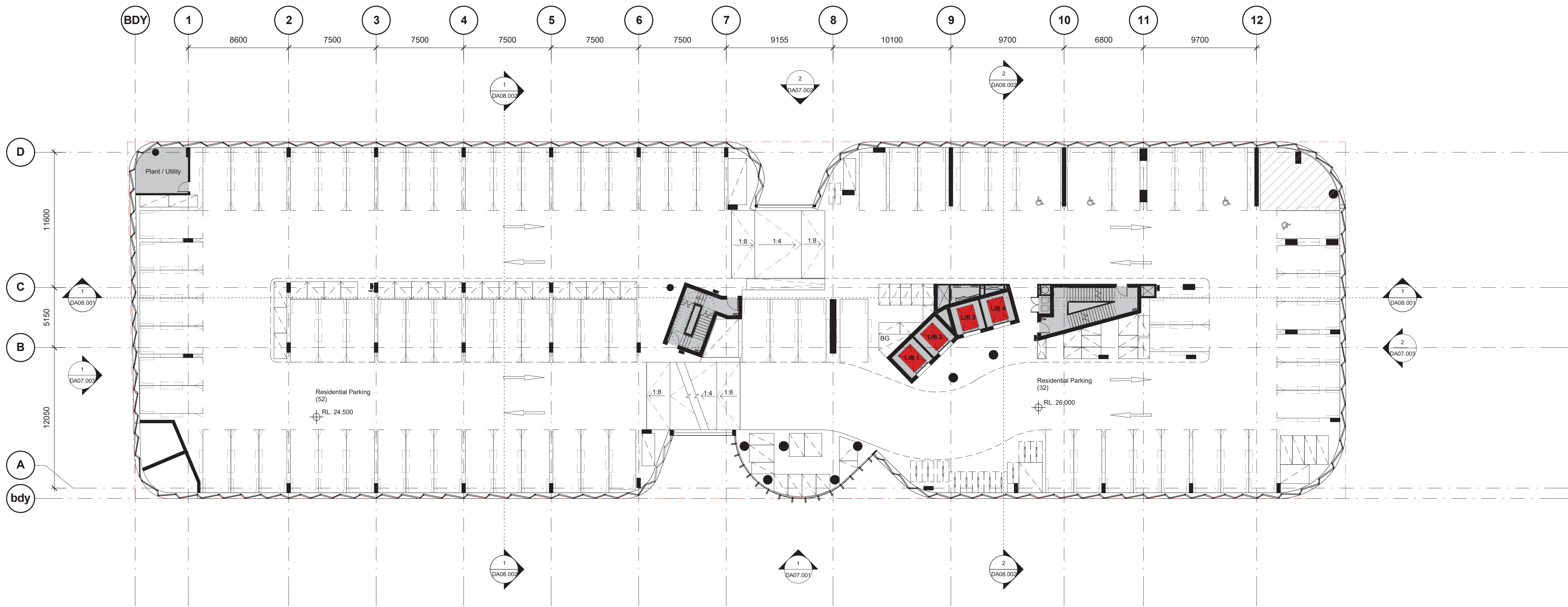
Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400



BATESSMART

C:\temp\SS_B3_ARCH\DA_PAN1.rvt



Legend - General
BG Bulky Goods
Storage Cage

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing
Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wet areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client: Ecove				



Site 9, Sydney Olympic Park 3 Olympic Boulevard

General Arrangement Plan Level 05



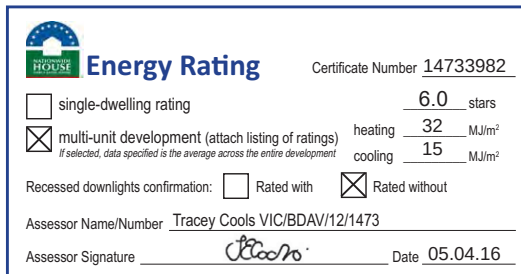
Status	Development Application		
Scale	1 : 200	@	A1
Drawn	Author	Checked	Checker
Project No.	S11890		
Plot Date	1/04/2016 3:48:59 PM		
Plot File			

Drawing no.	Revision
DA02.005	A

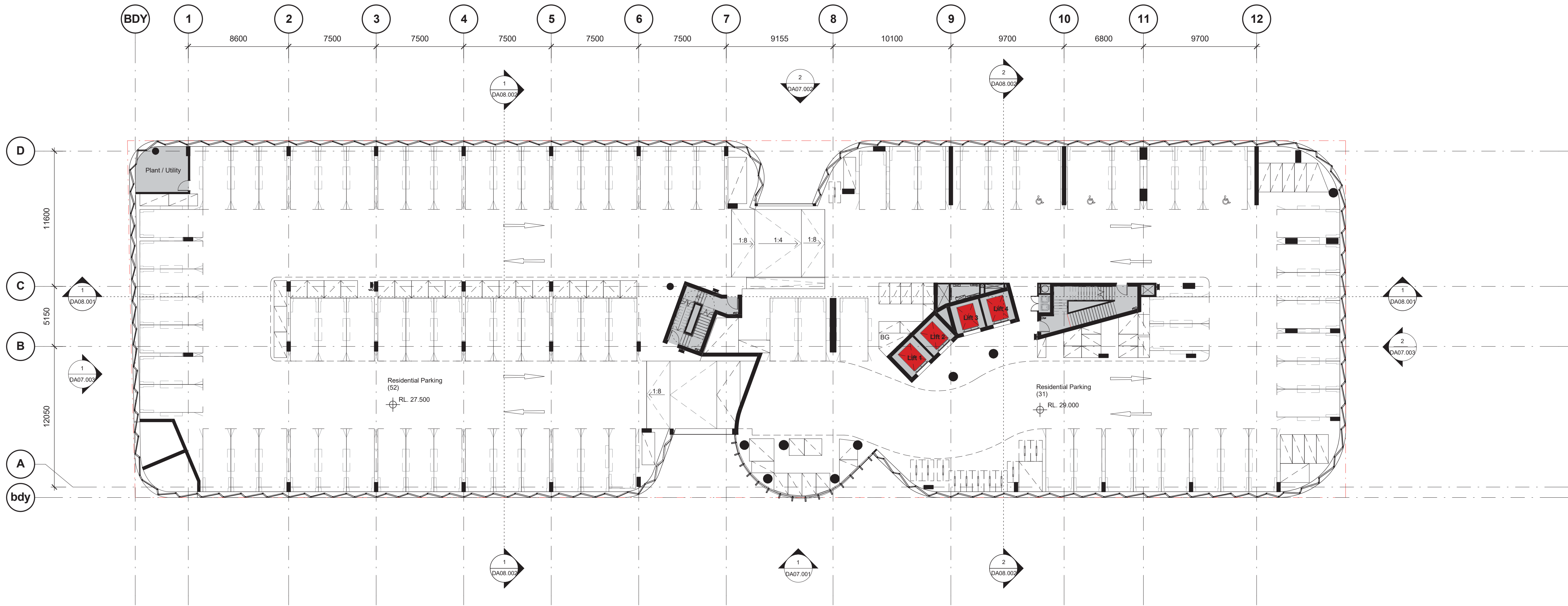
Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400



BATESSMART



Legend - General
BG Bulky Goods
Storage Cage

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing
Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked

Client: Ecove



ecove®

Site 9, Sydney Olympic Park 3 Olympic Boulevard

General Arrangement Plan Level 06



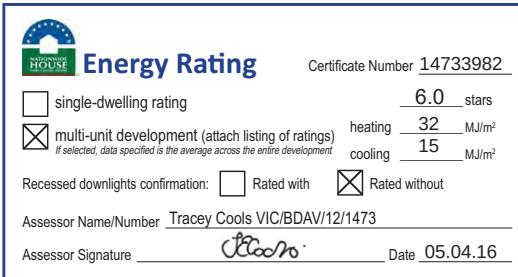
Status	Development Application
Scale	1 : 200 @ A1
Drawn	Author Checked Checker
Project No.	S11890
Plot Date	1/04/2016 3:49:12 PM
Plot File	

Drawing no.	Revision
DA02.006	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400



BATESSMART

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing

Doors / windows:

- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:

Concrete roof - No insulation

Default Colour modelled

Ceiling:

Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:

Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:

Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:

75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:

Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:

1 & 2 bed apartments - tiles to wet areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system

Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water

Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy

Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client: Ecove				



ecove®

Site 9, Sydney Olympic Park 3 Olympic Boulevard

General Arrangement Plan Level 07



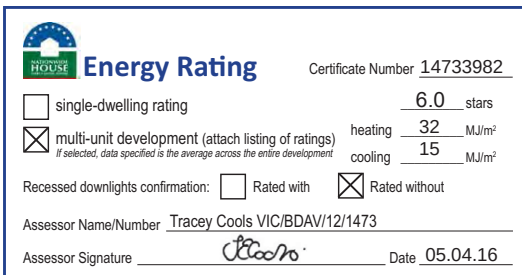
Status	Development Application		
Scale	1 : 200	@	A1
Drawn	Author	Checked	Checker
Project No.	S11890		
Plot Date	1/04/2016 3:49:32 PM		
Plot File			

Drawing no.	Revision
DA02.007	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400



BATESSMART™

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing

Doors / windows:

- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:

Concrete roof - No insulation

Default Colour modelled

Ceiling:

Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:

Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:

Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:

75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:

Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:

1 & 2 bed apartments - tiles to wet areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system

Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water

Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building

(No rainwater tank required for BASIX compliance)

Alternative energy

Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client:	Ecove			



Site 9, Sydney Olympic Park 3 Olympic Boulevard

General Arrangement Plan Level 08



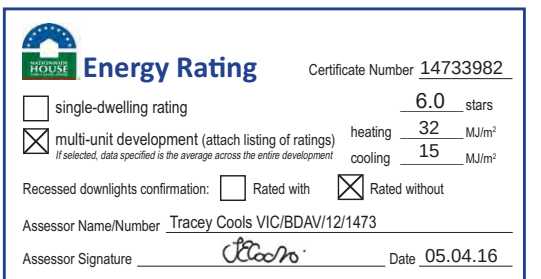
Status	Development Application
Scale	1 : 200 @ A1
Drawn	Author Checked Checker
Project No.	S11890
Plot Date	1/04/2016 1:04:11 PM
Plot File	

Drawing no.	Revision
DA02.008	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400



BATESSMART

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing

Doors / windows:

- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:

Concrete roof - No insulation

Default Colour modelled

Ceiling:

Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:

Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:

Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:

75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:

Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wet areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client: Ecove				



Site 9, Sydney Olympic Park
3 Olympic Boulevard

General Arrangement Plan
Level 09

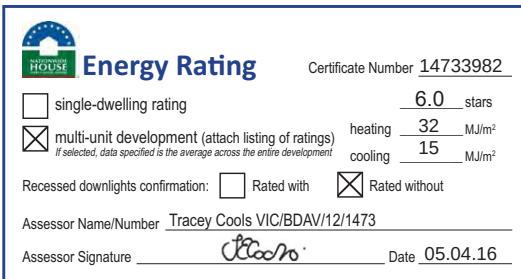
Status	Development Application		
Scale	1 : 200	@	A1
Drawn	Author	Checked	Checker
Project No.	S11890		
Plot Date	3/03/2016 7:57:26 PM		
Plot File			

Drawing no.	Revision
DA02.009	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400



BATESSMART™

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing
Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client: Ecove				



Site 9, Sydney Olympic Park
3 Olympic Boulevard

General Arrangement Plan
Level 10, 12, 14



Status	Development Application		
Scale	1 : 100	@	A1
Drawn	Author	Checked	Checker
Project No.	S11890		
Plot Date	7/03/2016 2:50:34 PM		
Plot File			

Drawing no.	Revision
DA02.010	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400

	Energy Rating	Certificate Number: 14733982
☐ single-dwelling rating		6.0 stars
☒ multi-unit development (attach listing of ratings)		heating 3.2 stars
		cooling 1.5 stars
Recessed downlights confirmation:	☐ Rated with	☒ Rated without
Assessor Name/Number	Tracey Cooks VIC/BDAN/121473	
Assessor Signature		Date: 05.04.16

BATESSMART

C:\Temp\99_BS_ARCH\SHH.rvt

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing

Doors / windows:

- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:

Concrete roof - No insulation

Default Colour modelled

Ceiling:

Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:

Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:

Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:

75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:

Concrete - R2.1 insulation to all units in level 7 with car park below

Concrete - no insulation required between units

Floor coverings:

1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans

All 3 & 4 bed apartments tiled throughout

Central hot water system

Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water

Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building

(No rainwater tank required for BASIX compliance)

Alternative energy

Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client:	Ecove			



ecove®

Site 9, Sydney Olympic Park
3 Olympic Boulevard

General Arrangement Plan
Level 11, 13



Status	Development Application
Scale	1 : 100 @ A1
Drawn	Author Checked Checker
Project No.	S11890
Plot Date	7/03/2016 2:50:49 PM
Plot File	

Drawing no.	Revision
DA02.011	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400

	Energy Rating	Certificate Number 14733982
☐ Single-dwelling rating		6.0 stars
☒ Multi-unit development (attach listing of ratings)	heating	32 MJ/m²
	cooling	15 MJ/m²
Reassessed dwellings confirmation: ☐ Rated with ☒ Rated without		
Assessor Name/Number: Tracey Coole VIC/BD4/121473		
Assessor Signature: Date: 05.04.16		

BATESSMART

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing
Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client:	Ecove			



Site 9, Sydney Olympic Park
3 Olympic Boulevard

General Arrangement Plan
Level 15, 17, 19

Status	Development Application
Scale	1 : 100 @ A1
Drawn	Author Checked Checker
Project No.	S11890
Plot Date	7/3/2016 2:51:05 PM
Plot File	

Drawing no.	Revision
DA02.015	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400

Energy Rating

Certificate Number 14733982

☐ single-dwelling rating

☒ multi-unit development (attach listing of ratings)

heating 6.0 stars

cooling 32 MJ/m²

cooling 15 MJ/m²

Recessed downlights confirmation: ☐ Rated with ☒ Rated without

Assessor Name/Number Tracey Crooks VICBDM/121473

Assessor Signature Date 05.04.16

BATESSMART™

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing

Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:

Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:

Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:

75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:

Concrete - R2.1 insulation to all units in level 7 with car park below

Concrete - no insulation required between units

Floor coverings:

1 & 2 bed apartments - tiles to wet areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system

Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water

Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy

Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client:	Ecove			



Site 9, Sydney Olympic Park 3 Olympic Boulevard

General Arrangement Plan Level 16, 18



Status	Development Application
Scale	1 : 100 @ A1
Drawn	Author Checked Checker
Project No.	S11890
Plot Date	7/03/2016 2:51:28 PM
Plot File	

Drawing no.	Revision
DA02.016	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400

	Energy Rating	Certificate Number: 14733982
☐ Single-building rating		6.0 stars
☒ Multi-unit development (attach listing of ratings)	heating	32 MJ/m²
	cooling	15 MJ/m²
Recessed downlights confirmation: ☐ Rated with ☒ Rated without		
Assessor Name/Number: Tracey Cooks VIC/BDAN/121473		
Assessor Signature: Date: 05.04.16		

BATESSMART™

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing
Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client:	Ecove			



Site 9, Sydney Olympic Park
3 Olympic Boulevard

General Arrangement Plan
Level 20, 22, 24, 26

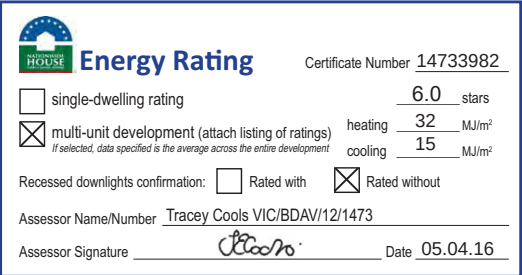
Status	Development Application
Scale	1 : 100 @ A1
Drawn	Author Checked Checker
Project No.	S11890
Plot Date	7/03/2016 2:51:43 PM
Plot File	

Drawing no.	Revision
DA02.020	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400



BATESSMART

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing
Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client:	Ecove			



Site 9, Sydney Olympic Park
3 Olympic Boulevard

General Arrangement Plan
Level 21, 23, 25



Status	Development Application
Scale	1 : 100 @ A1
Drawn	Author Checked Checker
Project No.	S11890
Plot Date	7/03/2016 2:52:01 PM
Plot File	

Drawing no.	Revision
DA02.021	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400

**Energy Rating**

Certificate Number 14733982

☐ single-dwelling rating

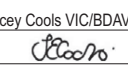
☒ multi-unit development (attach listing of ratings)

heating 32 MJ/m²

cooling 15 MJ/m²

Recessed downlights confirmation ☐ Rated with ☒ Rated without

Assessor Name/Number Tracy Cook VIC/BDU/121473

Assessor Signature  Date 05.04.16

BATESSMART

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing
Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation
External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wet areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client:	Ecove			



**Site 9, Sydney Olympic Park
3 Olympic Boulevard**

**General Arrangement Plan
Level 27, 29, 31, 33, 35**

Status	Development Application
Scale	1 : 100 @ A1
Drawn	Author Checked Checker
Project No.	S11890
Plot Date	7/03/2016 2:57:37 PM
Plot File	

Drawing no.	Revision
DA02.027	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400

Energy Rating

Certificate Number: 14733982

☐ single-dwelling rating

6.0 stars

☒ multi-unit development (attach listing of ratings)

heating 32 stars

☒ Retailed (data specified in the average across the entire development)

cooling 15 stars

Recessed downlights confirmation:

☐ Rated with

☒ Rated without

Assessor Name/Number: Tracy Cooks VIC/BDAN/12/1473

Assessor Signature:

Date: 05.04.16

BATESSMART



Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing
Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client:	Ecove			



Site 9, Sydney Olympic Park
3 Olympic Boulevard

General Arrangement Plan
Level 28, 30, 32, 34



Status	Development Application
Scale	1 : 100 @ A1
Drawn	Author Checked Checker
Project No.	S11890
Plot Date	7/03/2016 2:52:33 PM
Plot File	

Drawing no.	Revision
DA02.028	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400

**Energy Rating**

Certificate Number: 14733982

Single-dwelling rating: 6.0 stars

Multi-unit development (attach listing of ratings): heating: 32 stars, cooling: 15 stars

Recessed downlights confirmation: Rated with, Rated without

Assessor Name/Number: Tracy Cook VIC/BAU/121473

Assessor Signature: [Signature] Date: 05.04.16

BATESSMART

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing

Doors / windows:

- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:

Concrete roof - No insulation

Default Colour modelled

Ceiling:

Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:

Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:

Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:

75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:

Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:

1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system

Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water

Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building

(No rainwater tank required for BASIX compliance)

Alternative energy

Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client: Ecove				



Site 9, Sydney Olympic Park 3 Olympic Boulevard

General Arrangement Plan Level 36-37



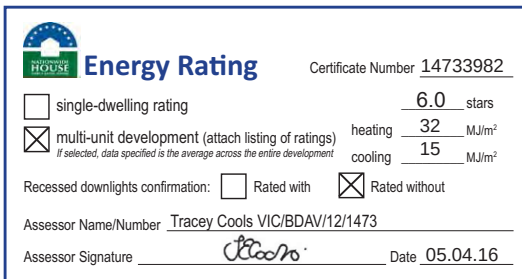
Status	Development Application		
Scale	1 : 100	@	A1
Drawn	Author	Checked	Checker
Project No.	S11890		
Plot Date	7/03/2016 2:52:48 PM		
Plot File			

Drawing no.	Revision
DA02.036	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400



BATESSMART

C:\Temp\99_BS_ARCH_SHH\pvt

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Notes - Construction General (BASIX)

Glazing
Doors / windows:
- Aluminium framed **single clear** glazing to internal windows that open to wintergardens
U-Value: 6.6 (equal to or lower than)
SHGC: 0.69 (+ or - 10%)

- Aluminium framed **double clear** glazing to curtain walls & glazing to balcony edge.
U-Value: 4.4 (equal to or lower than)
SHGC: 0.5 (+ or - 10%)

Given values are NFRC, total window values

Roof / ceiling insulation

Roof:
Concrete roof - No insulation

Default Colour modelled

Ceiling:
Plasterboard ceiling - R3.0 bulk insulation to selected units (34.01 and 34.07) with balconies above.

Plasterboard ceiling - R2.0 bulk insulation to all units to top floor, balconies above & slot areas above to all other units.

Note: It has been assumed at DA stage that the area of all ceiling penetrations is less than 0.5% of the total ceiling area. If down lights are proposed at a later stage, BCA loss of insulation calculations will be required.

Wall / floor insulation

External Wall:
Lightweight cladding to all external walls with R1.5 bulk insulation
No colour nominated

Internal walls within units:
Plasterboard on studs - no insulation

Inter-tenancy walls / corridor:
75mm hebel power panel plasterboard lined with R2.0 acoustic insulation to **selected units only (7.01 and 8.01)**

75mm hebel power panel plasterboard lined with R1.5 acoustic insulation to all other units.

Floors:
Concrete - R2.1 insulation to all units in level 7 with car park below
Concrete - no insulation required between units

Floor coverings:
1 & 2 bed apartments - tiles to wets areas, carpet to bedrooms and living areas as per plans
All 3 & 4 bed apartments tiled throughout

Central hot water system
Central gas-fired boiler with R1.0 (~38mm) insulation to ringmain and supply risers.

Reticulated alternative water
Alternative water supply available from Sydney Olympic Park Authority to be used for the irrigation of all landscaping & all toilets within the building
(No rainwater tank required for BASIX compliance)

Alternative energy
Not required by BASIX

A	01.03.16	Development Application	JS	CP
Revision	Date	Description	Initial	Checked
Client: Ecove				



Site 9, Sydney Olympic Park
3 Olympic Boulevard

General Arrangement Plan
Level 38



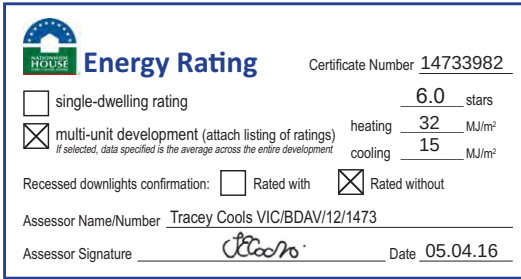
Status	Development Application		
Scale	1 : 100	@	A1
Drawn	Author	Checked	Checker
Project No.	S11890		
Plot Date	7/03/2016 2:53:03 PM		
Plot File			

Drawing no.	Revision
DA02.038	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email: mel@batesmart.com.au
http://www.batesmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email: syd@batesmart.com.au
http://www.batesmart.com.au

Bates Smart Pty Ltd ABN 70 004 999 400



BATESSMART

C:\Temp\99_BIS_ARCH_SHH\pvt