BESS Report

Built Environment Sustainability Scorecard

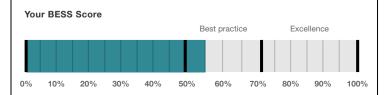






This BESS report outlines the sustainable design commitments of the proposed development at 272 Maroondah Hwy Healesville VIC 3777. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Yarra Ranges Shire Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved



59%

Project details

Address 272 Maroondah Hwy Healesville VIC 3777

Project no FC62D519-R1

BESS Version BESS-6

Site type Mixed use development

Account iim@skart.com.au

Application no.

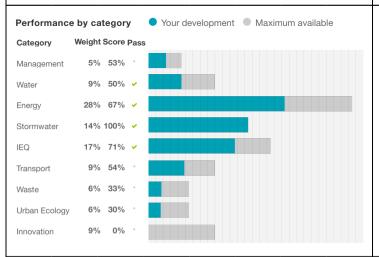
 Site area
 487 m²

 Building floor area
 438.3 m²

 Date
 07 February 2022

 Software version
 1.7.0-B.377







Buildings

Name	Height	Footprint	% of total footprint	
Main Building	3	212 m²	100%	

Dwellings & Non Res Spaces

Dwellings

Name	Quantity	Area	Building	% of total area	
Apartment					
Apartment 3	1	111 m²	Main Building	25%	
Apartment 1	1	92.2 m²	Main Building 21%		
Apartment 2	1	84.5 m ²	Main Building	19%	
Total	3	288 m²	65%		

Non-Res Spaces

Name	Quantity	Area	Building	% of total area	
Shop					
GF Shop & GF Bar	1	150 m ²	Main Building	34%	
Total	1	150 m²	34%	-	

Supporting information

Floorplans & elevation notes

Credit	Requirement	Response	Status
Management 3.1	Individual utility meters annotated	To be printed Refer A02	~
Management 3.2	Individual utility meters annotated	To be printed Refer A02	~
Management 3.3	Common area submeters annotated	To be printed Refer A02	~
Water 3.1	Water efficient garden annotated	To be printed Refer A02	
Energy 3.4	Clothes line annotated (if proposed)	To be printed Refer A03 and A04 (apartment laundries)	
Energy 4.2	Floor plans showing location of photovoltaic panels as described.	To be printed Refer A05	~
Stormwater 1.1	Location of any stormwater management systems used in STORM or To be printed MUSIC modelling (e.g. Rainwater tanks, raingarden, buffer strips) Refer A02 & A05		~
IEQ 1.1	If using BESS daylight calculator, references to floorplans and elevations showing window sizes and sky angles.		
IEQ 1.2	If using BESS daylight calculator, references to floorplans and elevations showing window sizes and sky angles.	ons To be printed Refer A03 through A11	
IEQ 1.5	Floor plans with compliant bedrooms marked	To be printed Refer A03 and A04	~

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		Response	Status
IEQ 2.1	Dwellings meeting the requirements for being 'naturally ventilated'	To be printed Refer A03 and A04	~
Transport 1.1	All nominated residential bicycle parking spaces	To be printed Refer A02	~
Transport 1.3	rt 1.3 Residential bicycle parking spaces at ground level To be printed Refer A02		~
Transport 2.1	Location of electric vehicle charging infrastructure	infrastructure To be printed Refer A02	
Waste 2.2	ste 2.2 Location of recycling facilities To be printed Refer A03 and A04 (apartr kitchens)		~
Urban Ecology 2.1	ogy 2.1 Vegetated areas To be printed Refer A02 and A03		~
Urban Ecology 2.2	Green roof To be printed Refer A03		~
Urban Ecology 2.4	Taps and floor waste on balconies / courtyards	To be printed Refer A03 & A04	~

Supporting evidence

Credit	Requirement	Response	Status
Management 2.2	Preliminary NatHERS assessments	Uploaded 272Maroondah_Prelim FirstRate.pdf Preliminary FirstRate reports for 3x apartments https://bess.net.au/t/A332B315	*
Energy 1.1	Energy Report showing calculations of reference case and proposed buildings	Uploaded 272Maroondah_Prelim NonRes Facade Calculator.pdf Refer also 272Maroondah_Supporting Evidence https://bess.net.au/t/12757EF5	✓
Energy 3.6	Provide a written description of the average lighting power density to be installed in the development and specify the lighting type(s) to be used.		
Energy 3.7	Provide a written description of the average lighting power density to be installed in the development and specify the lighting type(s) to be used.	•	
Energy 4.2	Specifications of the solar photovoltaic system(s).	Uploaded 272Maroondah_Supporting Evidence.pdf Refer page 1 https://bess.net.au/t/F62D6BDE	
Stormwater 1.1	STORM report or MUSIC model	Uploaded 272Maroondah_StormRatingReport.pd Storm Report https://bess.net.au/t/F76C88D5	✓ df
IEQ 1.1	If using an alternative daylight modelling program, a short report detailing assumptions used and results achieved.	Uploaded 272Maroondah_Supporting Evidence.pdf Using BESS Calculator https://bess.net.au/t/F62D6BDE	*

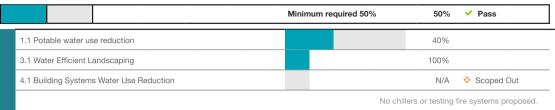
Credit	Requirement	Response	Status
IEQ 1.2	If using an alternative daylight modelling program, a short report detailing assumptions used and results achieved.	Uploaded 272Maroondah_Supporting Evidence.pdf Using BESS Calculator https://bess.net.au/t/F62D6BDE	*
IEQ 1.4	A short report detailing assumptions used and results achieved.	I results achieved. Uploaded 272Maroondah_Supporting Evidence.pdf Refer page 2 https://bess.net.au/t/F62D6BDE	
EQ 1.5	A list of compliant bedrooms	Uploaded 272Maroondah_Supporting Evidence.pdf Refer page 2 https://bess.net.au/t/F62D6BDE	*
IEQ 2.1	A list of naturally ventilated dwellings	Uploaded 272Maroondah_Supporting Evidence.pdf Refer page 2 https://bess.net.au/t/F62D6BDE	*

Credit summary

Management Overall contribution 4.5%



Water Overall contribution 9.0%



Energy Overall contribution 27.5%

	Minimum requ	tired 50% 67%	✓ Pass
1.1 Thermal Performance Rating - Non-Residential		37%	
1.2 Thermal Performance Rating - Residential		50%	
2.1 Greenhouse Gas Emissions		100%	
2.2 Peak Demand		34%	
2.3 Electricity Consumption		100%	
2.4 Gas Consumption		N/A	Scoped Out
		Ne	o gas connection in use
3.1 Carpark Ventilation		N/A	Scoped Out
			Carpark not enclosed.
3.2 Hot Water		100%	
3.4 Clothes Drying		100%	
3.6 Internal Lighting - Residential Multiple Dwellings		100%	
3.7 Internal Lighting - Non-Residential		100%	
4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A	Scoped Out
		No cogeneration or trige	eneration system in use.
4.2 Renewable Energy Systems - Solar		65%	
4.4 Renewable Energy Systems - Other		N/A	O Disabled
		No other (non-solar PV) rene	ewable energy is in use.

Stormwater Overall contribution 13.5%

	M	Minimum required 100%	100%	✓ Pass
1.1 Stormwater Treatment			100%	

IEQ Overall contribution 16.5%

	Minimum required 50%	71%	✓ Pass
1.1 Daylight Access - Living Areas		100%	
1.2 Daylight Access - Bedrooms		100%	
1.3 Winter Sunlight		0%	
1.4 Daylight Access - Non-Residential		44%	✓ Achieved
1.5 Daylight Access - Minimal Internal Bedrooms		100%	
2.1 Effective Natural Ventilation		100%	
2.3 Ventilation - Non-Residential		33%	✓ Achieved
3.4 Thermal comfort - Shading - Non-residential		100%	
3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%	
4.1 Air Quality - Non-Residential		66%	

Transport Overall contribution 9.0%

anoport everal contribution 6.678			
		54%	
1.1 Bicycle Parking - Residential		100%	
1.2 Bicycle Parking - Residential Visitor		N/A	Scoped Out
			Not enough dwellings.
1.3 Bicycle Parking - Convenience Residential		100%	
1.4 Bicycle Parking - Non-Residential		0%	
1.5 Bicycle Parking - Non-Residential Visitor		0%	
1.6 End of Trip Facilities - Non-Residential		N/A	O Disabled
		Credit 1.4	must be complete first.
2.1 Electric Vehicle Infrastructure		100%	
2.2 Car Share Scheme		0%	
2.3 Motorbikes / Mopeds		0%	

Waste Overall contribution 5.5%

	33%
1.1 - Construction Waste - Building Re-Use	0%
2.1 - Operational Waste - Food & Garden Waste	0%
2.2 - Operational Waste - Convenience of Recycling	100%

Urban Ecology Overall contribution 5.5%

	30%
1.1 Communal Spaces	0%
2.1 Vegetation	25%
2.2 Green Roofs	100%
2.3 Green Walls and Facades 0%	
2.4 Private Open Space - Balcony / Courtyard Ecology	100%
3.1 Food Production - Residential	0%
3.2 Food Production - Non-Residential	0%

Innovation Overall contribution 9.0%

		0%	
1.1 Innovation		0%	

Credit breakdown

Management Overall contribution 2%

1.1 Pre-Application Meeting		0%
Score Contribution	This credit contributes 37.5% towards the	ne category score.
Criteria	Has an ESD professional been engaged	to provide sustainability advice from schematic
	design to construction? AND Has the ES	SD professional been involved in a pre-
	application meeting with Council?	
Question	Criteria Achieved ?	
Project	No	
2.2 Thermal Performance Modellin Residential	ng - Multi-Dwelling	100%
Score Contribution	This credit contributes 16.4% towards the	ne category score.
Criteria	Have preliminary NatHERS ratings been	undertaken for all thermally unique dwellings?
Question	Criteria Achieved ?	
Apartment	Yes	
2.3 Thermal Performance Modellin	ng - Non-Residential	0%
Score Contribution	This credit contributes 8.6% towards the	e category score.
Criteria	Has preliminary modelling been undertaken in accordance with either NCC2019	
	Section J (Energy Efficiency), NABERS of	or Green Star?
Criteria	Has a preliminary facade assessment be Section J1.5?	een undertaken in accordance with NCC2019
Question	Criteria Achieved ?	
Shop	No	
Criteria	Has preliminary modelling been undertal	ken in accordance with either NCC2019
	Section J (Energy Efficiency), NABERS of	or Green Star?
Question	Criteria Achieved ?	
Shop	No	
3.1 Metering		100%
Score Contribution	This credit contributes 8.2% towards the	e category score.
Criteria	Have utility meters been provided for all	individual dwellings?
Question	Criteria Achieved ?	
Apartment	Yes	
3.2 Metering		100%
Score Contribution	This credit contributes 4.3% towards the	e category score.
Criteria	Have utility meters been provided for all	individual commercial tenants?
Question	Criteria Achieved ?	
Shop	Yes	

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3.3 Metering	100%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Have all major common area services been separately submetered?
Question	Criteria Achieved ?
Apartment	Yes
Shop	Yes
4.1 Building Users Guide	100%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Will a building users guide be produced and issued to occupants?
Question	Criteria Achieved ?

Water Overall contribution 4% Minimum required 50%

Water Approach	
What approach do you want to use for Water?:	Use the built in calculation tools
Project Water Profile Question	
Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No
Are you installing a rainwater tank?:	Yes
Water fixtures, fittings and connections	
Building: All	Main Building
Showerhead:	
Apartment 1	3 Star WELS (>= 7.5 but <= 9.0) (minimum requirement)
Apartment 2	
Apartment 3	
GF Shop & GF Bar	Scope out
Bath:	
Apartment 1	Medium Sized Contemporary Bath
Apartment 2	
Apartment 3	
GF Shop & GF Bar	Scope out
Kitchen Taps: All	>= 5 Star WELS rating
Bathroom Taps: All	>= 5 Star WELS rating
Dishwashers:	
Apartment 1	>= 4 Star WELS rating
Apartment 2	
Apartment 3	
GF Shop & GF Bar	Scope out
WC: All	>= 3 Star WELS rating
Urinals: All	Scope out
Washing Machine Water Efficiency:	
Apartment 1	Occupant to Install
Apartment 2	
Apartment 3	
GF Shop & GF Bar	Scope out
Which non-potable water source is the dwelling/space connected to?: All	Underground tanks below carpark
Non-potable water source connected to Toilets: All	Yes
Non-potable water source connected to Laundry (washing machine): All	No
Non-potable water source connected to Hot Water System: A	All No
Rainwater Tank	
What is the total roof area connected to the rainwater tank?: Underground tanks below carpark	145 m²
Tank Size: Underground tanks below carpark	16,500 Litres

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Is connected irrigation area a water effil Underground tanks below carpark Other external water demand connecte Underground tanks below carpark 1.1 Potable water use reduction	d to tank?:	No 0.0 Litres/Day 40%
Underground tanks below carpark		,
1.1 Potable water use reduction	This credit contribute	40%
	This credit contribute	
Score Contribution		es 83.3% towards the category score.
Criteria	What is the reduction	n in total potable water use due to efficient fixtures, appliances,
	rainwater use and re	cycled water use? To achieve points in this credit there must be
	>25% potable water	reduction.
Output	Reference	
Project	678 kL	
Output	Proposed (excluding	rainwater and recycled water use)
Project	579 kL	
Output	Proposed (including	rainwater and recycled water use)
Project	473 kL	
Output	% Reduction in Pota	able Water Consumption
Project	30 %	
Output	% of connected den	nand met by rainwater
Project	100 %	
Output	How often does the	tank overflow?
Project	Never / Rarely	
Output	Opportunity for addi	tional rainwater connection
Project	212 kL	
3.1 Water Efficient Landscaping		100%
Score Contribution	This credit contribute	es 16.7% towards the category score.
Criteria	Will water efficient la	andscaping be installed?
Question	Criteria Achieved ?	
Project	Yes	
4.1 Building Systems Water Use Red	uction	N/A 💠 Scoped Ou
This credit was scoped out	No chillers or testing	fire systems proposed.

Energy Overall contribution 18% Minimum required 50%

_		
	Use the BESS Deem to Satisfy (DtS) method for Energy?:	Yes
	Do all exposed floors and ceilings (forming part of the envelope) demonstrate a minimum 10% improvement in required NCC2019 insulation levels (total R-value upwards and downwards)?:	Yes
	Does all wall and glazing demonstrate meeting the required NCC2019 facade calculator (or better than the total allowance)?:	Yes
	Are heating and cooling systems within one Star of the most efficient equivalent capacity unit available, or Coefficient of Performance (CoP) & Energy Efficiency Ratios (EER) not less than 85% of the CoP & EER of the most efficient equivalent capacity unit available?:	Yes
	Are water heating systems within one star of the best available, or 85% or better than the most efficient equivalent capacity unit?:	Yes
	Dwellings Energy Approach	
	What approach do you want to use for Energy?:	Use the built in calculation tools
	Project Energy Profile Question	
	Are you installing any solar photovoltaic (PV) system(s)?:	Yes
	Are you installing any other renewable energy system(s)?:	No
	Gas supplied into building:	No gas connection
	Dwelling Energy Profiles	
	Building: All	Main Building
-	Building: All Below the floor is: All	Main Building Another Occupancy
-	<u> </u>	•
-	Below the floor is: All	•
-	Below the floor is: All Above the ceiling is:	Another Occupancy
-	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2	Another Occupancy Another Occupancy
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3	Another Occupancy Another Occupancy Outside
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3 Exposed sides: All	Another Occupancy Another Occupancy Outside 4
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3 Exposed sides: All NatHERS Annual Energy Loads - Heat: All	Another Occupancy Another Occupancy Outside 4 100 MJ/sqm
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3 Exposed sides: All NatHERS Annual Energy Loads - Heat: All NatHERS Annual Energy Loads - Cool: All	Another Occupancy Another Occupancy Outside 4 100 MJ/sqm
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3 Exposed sides: All NatHERS Annual Energy Loads - Heat: All NatHERS star rating:	Another Occupancy Another Occupancy Outside 4 100 MJ/sqm 14.0 MJ/sqm
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3 Exposed sides: All NatHERS Annual Energy Loads - Heat: All NatHERS Annual Energy Loads - Cool: All NatHERS star rating: Apartment 1 Apartment 2 Apartment 3	Another Occupancy Another Occupancy Outside 4 100 MJ/sqm 14.0 MJ/sqm
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3 Exposed sides: All NatHERS Annual Energy Loads - Heat: All NatHERS Annual Energy Loads - Cool: All NatHERS star rating: Apartment 1 Apartment 2 Apartment 3 Type of Heating System: All	Another Occupancy Another Occupancy Outside 4 100 MJ/sqm 14.0 MJ/sqm 7.4 7.3 6.7 D Reverse cycle space
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3 Exposed sides: All NatHERS Annual Energy Loads - Heat: All NatHERS Annual Energy Loads - Cool: All NatHERS star rating: Apartment 1 Apartment 2 Apartment 3 Type of Heating System: All Heating System Efficiency: All	Another Occupancy Another Occupancy Outside 4 100 MJ/sqm 14.0 MJ/sqm 7.4 7.3 6.7 D Reverse cycle space 5 Star
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3 Exposed sides: All NatHERS Annual Energy Loads - Heat: All NatHERS Annual Energy Loads - Cool: All NatHERS star rating: Apartment 1 Apartment 2 Apartment 3 Type of Heating System: All Heating System Efficiency: All Type of Cooling System: All	Another Occupancy Another Occupancy Outside 4 100 MJ/sqm 14.0 MJ/sqm 7.4 7.3 6.7 D Reverse cycle space 5 Star Refrigerative space
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3 Exposed sides: All NatHERS Annual Energy Loads - Heat: All NatHERS Annual Energy Loads - Cool: All NatHERS star rating: Apartment 1 Apartment 2 Apartment 3 Type of Heating System: All Heating System Efficiency: All Type of Cooling System: All Cooling System Efficiency: All	Another Occupancy Another Occupancy Outside 4 100 MJ/sqm 14.0 MJ/sqm 7.4 7.3 6.7 D Reverse cycle space 5 Star Refrigerative space 5 Stars
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3 Exposed sides: All NatHERS Annual Energy Loads - Heat: All NatHERS Annual Energy Loads - Cool: All NatHERS star rating: Apartment 1 Apartment 2 Apartment 3 Type of Heating System: All Heating System Efficiency: All Type of Cooling System: All Cooling System Efficiency: All	Another Occupancy Another Occupancy Outside 4 100 MJ/sqm 14.0 MJ/sqm 7.4 7.3 6.7 D Reverse cycle space 5 Star Refrigerative space 5 Stars C Electric Heat Pump
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3 Exposed sides: All NatHERS Annual Energy Loads - Heat: All NatHERS Annual Energy Loads - Cool: All NatHERS star rating: Apartment 1 Apartment 2 Apartment 3 Type of Heating System: All Heating System Efficiency: All Type of Cooling System: All Cooling System Efficiency: All Type of Hot Water System: All % Contribution from solar hot water system: All	Another Occupancy Another Occupancy Outside 4 100 MJ/sqm 14.0 MJ/sqm 7.4 7.3 6.7 D Reverse cycle space 5 Star Refrigerative space 5 Stars C Electric Heat Pump 0 %
	Below the floor is: All Above the ceiling is: Apartment 1 Apartment 2 Apartment 3 Exposed sides: All NatHERS Annual Energy Loads - Heat: All NatHERS Annual Energy Loads - Cool: All NatHERS star rating: Apartment 1 Apartment 2 Apartment 3 Type of Heating System: All Heating System Efficiency: All Type of Cooling System: All Cooling System Efficiency: All	Another Occupancy Another Occupancy Outside 4 100 MJ/sqm 14.0 MJ/sqm 7.4 7.3 6.7 D Reverse cycle space 5 Star Refrigerative space 5 Stars C Electric Heat Pump

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,_00,	272 Maroondah Hwy Healesville 3777		
	Clothes Dryer: All		Occupant to Install
	Non-Residential Building Energy Profil	е	
	Heating, Cooling & Comfort Ventilation - fabric and reference services:	Electricity - reference	-
	Heating, Cooling & Comfort Ventilation - fabric and reference services:	Electricity - proposed	-
	Heating, Cooling & Comfort Ventilation - Electricity - proposed - fabric and proposed services: Heating - Wood - reference fabric and reference services: - Heating - Wood - proposed fabric and reference services: -		-
			-
			-
	Heating - Wood - proposed fabric and pr	oposed services:	-
	Hot Water - Electricity - Baseline:		-
	Hot Water - Electricity - Proposed:		-
	Lighting - Baseline:		-
	Lighting - Proposed:		-
	Peak Thermal Cooling Load - Baseline:		-
	Peak Thermal Cooling Load - Proposed:		-
	Solar Photovoltaic system		
Ī	System Size (lesser of inverter and panel capacity): Rooftop		8.0 kW peak
	Orientation (which way is the system facing)?: Rooftop PV		North
	Inclination (angle from horizontal): Rooftop PV		18.0 Angle (degrees)
	Which Building Class does this apply to?: Rooftop PV		Apartment
1.1 Thermal Performance Rating - Non-Residential 37%		37%	
	Score Contribution	This credit contribute	s 15.8% towards the category score.
	Criteria	What is the % reduct	ion in heating and cooling energy consumption against the
		reference case (NCC	2019 Section J)?
	1.2 Thermal Performance Rating - Res	idential	50%
	Score Contribution	This credit contribute	s 22.7% towards the category score.
	Criteria	What is the average N	NatHERS rating?
	Output	Average NATHERS R	ating (Weighted)
	Apartment	7.1 Stars	
	2.1 Greenhouse Gas Emissions		100%
	Score Contribution	This credit contribute	s 11.5% towards the category score.
	Criteria	What is the % reduct	ion in annual greenhouse gas emissions against the benchmark?
	Output	Reference Building w	ith Reference Services (BCA only)
	Apartment	31,119 kg CO2	
	Output	Proposed Building with Proposed Services (Actual Building)	
_	Output		
	Apartment	6,935 kg CO2	gy
	·		

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2.2 Peak Demand	34%
Score Contribution	This credit contributes 5.8% towards the category score.
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the
	benchmark?
Output	Peak Thermal Cooling Load - Baseline
Apartment	36.6 kW
Output	Peak Thermal Cooling Load - Proposed
Apartment	33.6 kW
Output	Peak Thermal Cooling Load - % Reduction
Apartment	8 %
2.3 Electricity Consumption	100%
Score Contribution	This credit contributes 11.5% towards the category score.
Criteria	What is the % reduction in annual electricity consumption against the benchmark?
Output	Reference
Apartment	30,509 kWh
Output	Proposed
Apartment	6,799 kWh
Output	Improvement
Apartment	77 %
2.4 Gas Consumption	N/A
This credit was scoped out	No gas connection in use
3.1 Carpark Ventilation	N/A
This credit was scoped out	Carpark not enclosed.
3.2 Hot Water	100%
Score Contribution	This credit contributes 5.8% towards the category score.
Criteria	What is the % reduction in annual hot water system energy use (gas and electricity)
	against the benchmark?
Output	Reference
Apartment	10,062 kWh
Output	Proposed
Apartment	3,123 kWh
Output	Improvement
Apartment	68 %

3.4 Clothes Drying		100%		
Score Contribution	This credit contributes 3.8% towards the c	category score.		
Criteria	Does the combination of clothes lines and	efficient dryers reduce e	nergy	
	(gas+electricity) consumption by more than	n 10%?		
Output	Reference			
Apartment	1,624 kWh			
Output	Proposed			
Apartment	650 kWh			
Output	Improvement			
Apartment	60 %			
3.6 Internal Lighting - Residentia	ıl Multiple Dwellings	100%		
Score Contribution	This credit contributes 7.6% towards the contributes 7.6% to 2.6% to 2.	category score.		
Criteria	Is the maximum illumination power density	/ (W/m2) in at least 90%	of the rele	vant
	building class at least 20% lower than requ	,		
	(Class 2-9) and Clause 3.12.5.5 NCC 2019			
Question	Criteria Achieved ?			
Apartment	Yes			
3.7 Internal Lighting - Non-Resid	lential	100%		
Score Contribution	This credit contributes 3.9% towards the c	category score.		
Criteria Does the maximum illumination power density (W/m/		nsity (W/m2) in at least 90)% of the	area of th
	relevant building class meet the requireme			
Question	Criteria Achieved ?			
Shop	Yes			
4.1 Combined Heat and Power (cogeneration /	N/A	ф S	Scoped O
trigeneration)				
This credit was scoped out	No cogeneration or trigeneration system in	ı use.		
4.2 Renewable Energy Systems	- Solar	65%		
Score Contribution	This credit contributes 5.8% towards the cont	category score.		
Criteria	Does the solar power system provide 5% of	of the estimated energy of	consumpt	ion of the
	building class it supplies?	0,		
Output	Solar Power - Energy Generation per year			
Apartment	10,112 kWh			
Output	% of Building's Energy			
Apartment	148 %			
4.4 Renewable Energy Systems	- Other	N/A	0	Disable
This credit is disabled	No other (non-solar PV) renewable energy	is in use		
or oart to aloabioa	. to out of their ocial i v) ichievable ellergy			

Stormwater Overall contribution 14% Minimum required 100%

Which stormwater modelling ar	re you using?: Melbourne Water STORM tool
1.1 Stormwater Treatment	100%
Score Contribution	This credit contributes 100.0% towards the category score.
Criteria	Has best practice stormwater management been demonstrated?
Question	STORM score achieved
Project	102
Output	Min STORM Score
Project	100

IEQ Overall contribution 12% Minimum required 50%

IEQ DTS	
Use the BESS Deemed to Satisfy (DtS) method for IEQ?:	No
Dwellings IEQ Approach	
What approach do you want to use for dwellings?:	Use the built in calculation tools
Dwelling Daylight Room Profile Questions	
Room Designation:	
Kitchen Living Apt3 Kitchen Living Apt2	Living
Bed 2 Apt1 Bed 1 Apt1 Bed 2 Apt2 Bed 1 Apt2 Bed 1 Apt3 Bed 2 Apt3	Bedroom
Quantity: All	1
Auto-Pass:	
Kitchen Living Apt1 Bed 1 Apt1 Kitchen Living Apt2 Bed 1 Apt2 Bed 2 Apt3	Yes
Bed 2 Apt1 Kitchen Living Apt3 Bed 2 Apt2 Bed 1 Apt3	No
Room Floor Area:	
Kitchen Living Apt1 Bed 1 Apt1 Kitchen Living Apt2 Bed 1 Apt2 Bed 2 Apt3	-
Bed 2 Apt1 Bed 2 Apt2	9.7 m²
Kitchen Living Apt3	33.6 m²
Bed 1 Apt3	12.3 m²
Vertical Angle:	
Kitchen Living Apt1 Bed 1 Apt1 Kitchen Living Apt2 Bed 1 Apt2 Bed 2 Apt3	-
Bed 2 Apt1	43.2 Angle (degrees)
Kitchen Living Apt3	40.0 Angle (degrees)
Bed 2 Apt2	70.2 Angle (degrees)
Bed 1 Apt3	66.8 Angle (degrees)

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Horizontal Angle:	
Kitchen Living Apt1	-
Bed 1 Apt1 Kitchen Living Apt2	
Bed 1 Apt2	
Bed 2 Apt3	
Bed 2 Apt1	65.5 Angle (degrees)
Bed 2 Apt2	
Kitchen Living Apt3	62.0 Angle (degrees)
Bed 1 Apt3	
Window Area:	
Kitchen Living Apt1	-
Bed 1 Apt1	
Kitchen Living Apt2 Bed 1 Apt2	
Bed 2 Apt3	
Bed 2 Apt1	2.9 m ²
Bed 1 Apt3	
Kitchen Living Apt3	8.3 m ²
Bed 2 Apt2	1.5 m²
Window Orientation:	
Kitchen Living Apt1	•
Bed 1 Apt1	
Kitchen Living Apt2 Bed 1 Apt2	
Bed 2 Apt3	
Bed 2 Apt1	South
Bed 2 Apt2	
Kitchen Living Apt3	North
Bed 1 Apt3	
Glass Type:	
Kitchen Living Apt1	
Bed 1 Apt1 Kitchen Living Apt2	
Bed 1 Apt2	
Bed 2 Apt3	
Bed 2 Apt1	Clear Low-E Double (VLT 0.73)
Kitchen Living Apt3	
Bed 2 Apt2	
Bed 1 Apt3	V
Daylight Criteria Achieved?: All	Yes
1.1 Daylight Access - Living Areas	100%
Score Contribution	This credit contributes 14.4% towards the category score.
Criteria	What % of living areas achieve a daylight factor greater than 1%
Output	Calculated percentage

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		100%	
Score Contribution	This credit contributes 14.4% towards the cate	egory score.	
Criteria	What % of bedrooms achieve a daylight factor	r greater than 0.5%	
Output	Calculated percentage		
Apartment	100 %		
1.3 Winter Sunlight		0%	
Score Contribution	This credit contributes 4.8% towards the cate	gory score.	
Criteria	Do 70% of dwellings receive at least 3 hours of	of direct sunlight in all Liv	/ing areas
	between 9am and 3pm in mid-winter?		
Question	Criteria Achieved ?		
Apartment	No		
1.4 Daylight Access - Non-Residenti	al	44%	✓ Achieve
Score Contribution	This credit contributes 15.0% towards the cate	egory score.	
Criteria	What % of the nominated floor area has at lea	st 2% daylight factor?	
Question	Percentage Achieved?		
Shop	44 %		
1.5 Daylight Access - Minimal Intern	al Bedrooms	100%	
Score Contribution	This credit contributes 4.8% towards the cate	gory score.	
Criteria	Do at least 90% of dwellings have an external	window in all bedrooms	?
Question	Criteria Achieved ?		
Apartment	Yes		
2.1 Effective Natural Ventilation		100%	
Score Contribution	This credit contributes 14.4% towards the cate	egory score.	
Criteria	What % of dwellings are effectively naturally v	entilated?	
Question	Percentage Achieved?		
Apartment	100 %		
2.3 Ventilation - Non-Residential		33%	✓ Achiev
Score Contribution	This credit contributes 15.0% towards the cate	egory score.	
Criteria	What % of the regular use areas are effectively	y naturally ventilated?	
Question	Percentage Achieved?		
Shop	0 %		
Criteria	What increase in outdoor air is available to reg	gular use areas compare	d to the minimu
required by AS 1668:2012?			
O	Percentage Achieved?		
Question	50 %		
Shop			
	What CO2 concentrations are the ventilation s	ystems designed to ach	ieve, to monito
Shop	What CO2 concentrations are the ventilation s and to maintain? Value	ystems designed to ach	ieve, to monito

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3.4 Thermal comfort - Shading - No	n-residential	100%
Score Contribution	This credit contributes 7.5% towards the	e category score.
Criteria	What percentage of east, north and wes	t glazing to regular use areas is effectively
	shaded?	
Question	Percentage Achieved?	
Shop	100 %	
3.5 Thermal Comfort - Ceiling Fans	- Non-Residential	0%
Score Contribution	This credit contributes 2.5% towards the	e category score.
Criteria	What percentage of regular use areas in	tenancies have ceiling fans?
Annotation	Cold shell - by tenant	
Question	Percentage Achieved?	
Shop	0 %	
4.1 Air Quality - Non-Residential		66%
Score Contribution	This credit contributes 7.3% towards the	e category score.
Criteria	Do all paints and adhesives meet the ma	aximum total indoor pollutant emission limits?
Question	Criteria Achieved ?	
Project	No	
Criteria	Does all carpet meet the maximum total	indoor pollutant emission limits?
Question	Criteria Achieved ?	
Project	No carpet	
Criteria	Does all engineered wood meet the max	kimum total indoor pollutant emission limits?
Question	Criteria Achieved ?	

Transport Overall contribution 5%

1.1 Bicycle Parking - Residential		100%		
Score Contribution	This credit contributes 17.9% towards the	category score.		
Criteria	Is there at least one secure bicycle space	per dwelling?		
Question	Bicycle Spaces Provided ?			
Apartment	3			
Output	Min Bicycle Spaces Required			
Apartment	3			
1.2 Bicycle Parking - Residential	Visitor	N/A	♦ Sc	coped Out
This credit was scoped out	Not enough dwellings.			
1.3 Bicycle Parking - Convenience	e Residential	100%		
Score Contribution	This credit contributes 9.0% towards the c	ategory score.		
Criteria	Are bike parking facilities for residents loca	ated at ground level?		
Question	Criteria Achieved ?			
Apartment	Yes			
1.4 Bicycle Parking - Non-Reside	ntial	0%		
Score Contribution	This credit contributes 9.3% towards the c	eategory score.		
Criteria	Have the planning scheme requirements for	or employee bicycle parking	g been ex	kceeded
	by at least 50% (or a minimum of 2 where	there is no planning schem	ne require	ement)?
Question	Criteria Achieved ?			
Shop	No			
Question	Bicycle Spaces Provided ?			
Shop	-			
1.5 Bicycle Parking - Non-Reside	ntial Visitor	0%		
Score Contribution	This credit contributes 4.7% towards the c	ategory score.		
Criteria	Have the planning scheme requirements for	or visitor bicycle parking be	en excee	eded by
	at least 50% (or a minimum of 1 where the	re is no planning scheme r	equireme	ent)?
Question	Criteria Achieved ?			
Shop	No			
Question	Bicycle Spaces Provided ?			
Shop	-			
1.6 End of Trip Facilities - Non-Re	esidential	N/A	0	Disabled
This credit is disabled	Credit 1.4 must be complete first.			
2.1 Electric Vehicle Infrastructure	•	100%		
Score Contribution	This credit contributes 27.2% towards the	category score.		
Criteria	Are facilities provided for the charging of e	lectric vehicles?		
	0 11 1 1 10			
Question	Criteria Achieved ?			

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2.2 Car Share Scheme	0%
Score Contribution	This credit contributes 13.6% towards the category score.
Criteria	Has a formal car sharing scheme been integrated into the development?
Question	Criteria Achieved ?
Project	No
2.3 Motorbikes / Mopeds	0%
Score Contribution	This credit contributes 13.6% towards the category score.
Criteria	Are a minimum of 5% of vehicle parking spaces designed and labelled for motorbikes
	(must be at least 5 motorbike spaces)?
Question	Criteria Achieved ?

Waste Overall contribution 2%

1.1 - Construction Waste - Bu	uilding Re-Use	0%
Score Contribution	This credit contributes 33.3% towards the	e category score.
Criteria	If the development is on a site that has be	een previously developed, has at least 30% of
	the existing building been re-used?	
Question	Criteria Achieved ?	
Project	No	
2.1 - Operational Waste - Foo	d & Garden Waste	0%
Score Contribution	This credit contributes 33.3% towards the	e category score.
Criteria	Are facilities provided for on-site manager	ment of food and garden waste?
Question	Criteria Achieved ?	
Project	No	
2.2 - Operational Waste - Cor	ovenience of Recycling	100%
Score Contribution	This credit contributes 33.3% towards the	e category score.
Criteria	Are the recycling facilities at least as conv	renient for occupants as facilities for general
	waste?	
Question	Criteria Achieved ?	
Project	Yes	

Urban Ecology Overall contribution 2%

110	00/
1.1 Communal Spaces	0%
Score Contribution	This credit contributes 11.6% towards the category score.
Criteria	Is there at least the following amount of common space measured in square meters : *
	1 m² for each of the first 50 occupants * Additional 0.5 m² for each occupant between 51
	and 250 * Additional 0.25m² for each occupant above 251?
Question	Common space provided
Apartment	0.0 m ²
Shop	0.0 m ²
Output	Minimum Common Space Required
Apartment	6 m²
Shop	15 m ²
2.1 Vegetation	25%
Score Contribution	This credit contributes 46.2% towards the category score.
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the
	total site area?
Question	Percentage Achieved ?
Project	5 %
2.2 Green Roofs	100%
Score Contribution	This credit contributes 11.6% towards the category score.
Criteria	Does the development incorporate a green roof?
Question	Criteria Achieved ?
Project	Yes
2.3 Green Walls and Facades	0%
Score Contribution	This credit contributes 11.6% towards the category score.
Criteria	Does the development incorporate a green wall or facade?
Question	Criteria Achieved ?
Project	No
2.4 Private Open Space - Balcony /	Courtyard Ecology 100%
Score Contribution	This credit contributes 7.6% towards the category score.
Criteria	Is there a tap and floor waste on every balcony / in every courtyard?
Question	Criteria Achieved ?
Apartment	Yes

3.1 Food Production - Residential	0%
Score Contribution	This credit contributes 7.6% towards the category score.
Criteria	Is there at least 0.25m² of space per resident dedicated to food production?
Question	Food Production Area
Apartment	0.0 m ²
Output	Min Food Production Area
Apartment	2 m²
3.2 Food Production - Non-Resident	ial 0%
3.2 Food Production - Non-Resident Score Contribution	This credit contributes 4.0% towards the category score.
Score Contribution	This credit contributes 4.0% towards the category score.
Score Contribution Criteria	This credit contributes 4.0% towards the category score. Is there at least 0.25m² of space per occupant dedicated to food production?
Score Contribution Criteria Question	This credit contributes 4.0% towards the category score. Is there at least 0.25m² of space per occupant dedicated to food production? Food Production Area

Innovation Overall contribution 0%

1.1 Innovation	0%
Score Contribution	This credit contributes 100.0% towards the category score.
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?

Disclaimer

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