BESS Report

Built Environment Sustainability Scorecard

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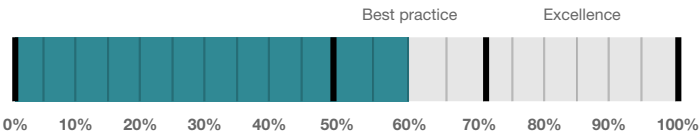
This BESS report outlines the sustainable design commitments of the proposed development at 12 Johnson St Oakleigh VIC 3166. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Monash City 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.

Note: This is a DRAFT and not suitable for submission to council

Your BESS Score

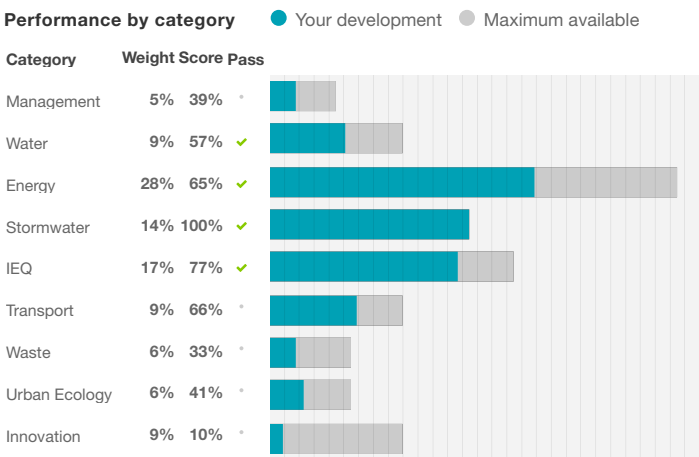


62%

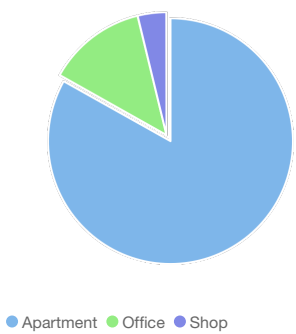
Project details

Address	12 Johnson St Oakleigh VIC 3166
Project no	1345BCAB
BESS Version	BESS-6
Site type	Mixed use development
Account	thorstenpadeffke@gmail.com
Application no.	
Site area	1,639.00 m²
Building floor area	5,913.30 m²
Date	17 November 2022
Software version	1.7.1-B.393

Performance by category



Building Type composition



Buildings

Name	Height	Footprint	% of total footprint
Building 1	7	1,639 m²	100%

Dwellings & Non Res Spaces

Dwellings

Name	Quantity	Area	Building	% of total area
Apartment				
Two-bed Apartments	54	72.5 m²	Building 1	66%
One-bed Apartments	13	52.0 m²	Building 1	11%
Three-bed Apartments	3	108 m²	Building 1	5%
Total	**70**	**4,915 m²**	**83%**	

Non-Res Spaces

Name	Quantity	Area	Building	% of total area
Office				
Commercial	1	774 m²	Building 1	13%
Total	**1**	**773 m²**	**13%**	
Shop				
Retail	1	224 m²	Building 1	3%
Total	**1**	**224 m²**	**3%**	

Supporting information

Floorplans & elevation notes

Credit	Requirement	Response	Status
Management 3.1	Individual utility meters annotated	To be printed Metering locations are indicated on the architectural drawings	✔
Management 3.2	Individual utility meters annotated	To be printed Metering locations are indicated on architectural drawings.	✔
Management 3.3	Common area submeters annotated	To be printed Metering locations are indicated on the architectural drawings	✔
Water 3.1	Water efficient garden annotated	To be printed All planter boxes will be water efficient.	✔
Energy 4.2	Floor plans showing location of photovoltaic panels as described.	To be printed Refer architectural roof plan - Level 7 and Roof	✔
Stormwater 1.1	Location of any stormwater management systems used in STORM or MUSIC modelling (e.g. Rainwater tanks, raingarden, buffer strips)	To be printed Raingarden proposed on ground floor, rainwater tank located in basement. Refer architectural drawings.	✔

Credit	Requirement	Response	Status
IEQ 1.1	If using BESS daylight calculator, references to floorplans and elevations showing window sizes and sky angles.	To be printed refer daylight modelling report	✔
IEQ 1.2	If using BESS daylight calculator, references to floorplans and elevations showing window sizes and sky angles.	To be printed refer modelling report	✔
IEQ 1.5	Floor plans with compliant bedrooms marked	To be printed All bedrooms have external windows	✔
IEQ 2.1	Dwellings meeting the requirements for being 'naturally ventilated'	To be printed Refer architectural plans	✔
Transport 1.1	All nominated residential bicycle parking spaces	To be printed Refer architectural drawings	✔
Transport 1.2	All nominated residential visitor bicycle parking spaces	To be printed refer architectural drawings	✔
Transport 1.4	All nominated non-residential bicycle parking spaces	To be printed refer architectural drawings	✔
Transport 1.5	All nominated non-residential visitor bicycle parking spaces	To be printed refer architectural drawings	✔
Transport 2.1	Location of electric vehicle charging infrastructure	To be printed Refer architectural basement plans	✔
Waste 2.2	Location of recycling facilities	To be printed Refer architectural Basement 1 plan	✔
Urban Ecology 1.1	Size and location of communal spaces	To be printed Refer architectural plan Level 7	✔
Urban Ecology 2.1	Vegetated areas	To be printed Refer SMP Appendix F: Area Schedule	✔
Urban Ecology 2.4	Taps and floor waste on balconies / courtyards	To be printed Hydraulic design not complete at this stage. Project is committed to installing taps and floor wastes on all balconies / courtyards.	✔

Supporting evidence

Credit	Requirement	Response	Status
Management 2.3a	Section J glazing assessment		-
Energy 1.1	Energy Report showing calculations of reference case and proposed buildings	To be printed SMP DTS-compliant solution, refer SMP	✔
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.	To be printed SMP Project is committed to achieving above illumination power density targets. Lighting design not commenced at this stage.	✔
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.	To be printed SMP Project is committed to achieving above illumination power density targets. Lighting design not commenced at this stage.	✔
Energy 4.2	Specifications of the solar photovoltaic system(s).	To be printed SMP Refer SMP page 16	✔
Stormwater 1.1	STORM report or MUSIC model	Uploaded StormRatingReport 20220426.PDF Storm report https://bess.net.au/t/C4B7B5AD	✔
IEQ 1.1	If using an alternative daylight modelling program, a short report detailing assumptions used and results achieved.	To be printed Daylight report	✔

Credit	Requirement	Response	Status
IEQ 1.2	If using an alternative daylight modelling program, a short report detailing assumptions used and results achieved.	To be printed Daylight modelling report refer daylight modelling report	✔
IEQ 1.4	A short report detailing assumptions used and results achieved.	To be printed Daylight modelling report refer Daylight modelling report	✔
IEQ 1.5	A list of compliant bedrooms	To be printed Architectural plans all bedrooms have external windows	✔
IEQ 2.1	A list of naturally ventilated dwellings	To be printed SMP - Appendix F Refer SMP, Appendix F	✔

Credit summary

Management Overall contribution 4.5%

39%

1.1 Pre-Application Meeting	0%
2.2 Thermal Performance Modelling - Multi-Dwelling Residential	0%
2.3 Thermal Performance Modelling - Non-Residential	50%
3.1 Metering - Residential	100%
3.2 Metering - Non-Residential	100%
3.3 Metering - Common Areas	100%
4.1 Building Users Guide	100%

Water Overall contribution 9.0%

Minimum required 50% **57%** ✔ **Pass**

1.1 Potable water use reduction	40%
3.1 Water Efficient Landscaping	100%
4.1 Building Systems Water Use Reduction	100%

Energy Overall contribution 27.5%

	Minimum required 50%	65%	Pass

1.1 Thermal Performance Rating - Non-Residential	37%	
1.2 Thermal Performance Rating - Residential	83%	
2.1 Greenhouse Gas Emissions	100%	
2.2 Peak Demand	16%	
2.3 Electricity Consumption	100%	
2.4 Gas Consumption	100%	
3.1 Carpark Ventilation	0%	
3.2 Hot Water	100%	
3.4 Clothes Drying	0%	
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 trigeneration system in use.	
4.2 Renewable Energy Systems - Solar	13%	
4.4 Renewable Energy Systems - Other	N/A	Disabled
	No other (non-solar PV) renewable energy is in use.	

Stormwater Overall contribution 13.5%

	Minimum required 100%	100%	Pass

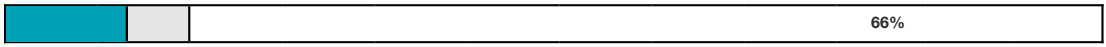
1.1 Stormwater Treatment	100%	

IEQ Overall contribution 16.5%

	Minimum required 50%	77%	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	58%	Achieved
1.5 Daylight Access - Minimal Internal Bedrooms	100%	
2.1 Effective Natural Ventilation	66%	
2.3 Ventilation - Non-Residential	88%	Achieved
3.4 Thermal comfort - Shading - Non-residential	0%	
3.5 Thermal Comfort - Ceiling Fans - Non-Residential	0%	
4.1 Air Quality - Non-Residential	100%	

Transport Overall contribution 9.0%



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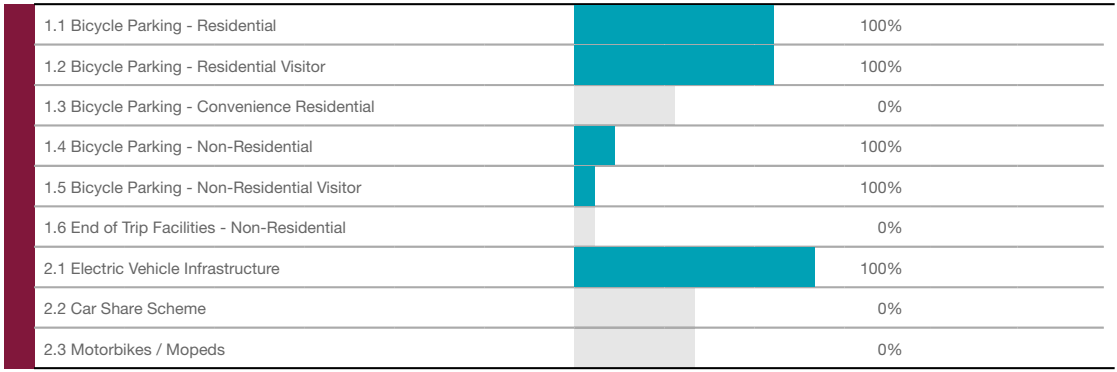
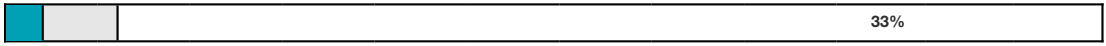


1.1 Bicycle Parking - Residential	100%
1.2 Bicycle Parking - Residential Visitor	100%
1.3 Bicycle Parking - Convenience Residential	0%
1.4 Bicycle Parking - Non-Residential	100%
1.5 Bicycle Parking - Non-Residential Visitor	100%
1.6 End of Trip Facilities - Non-Residential	0%
2.1 Electric Vehicle Infrastructure	100%
2.2 Car Share Scheme	0%
2.3 Motorbikes / Mopeds	0%

Waste Overall contribution 5.5%



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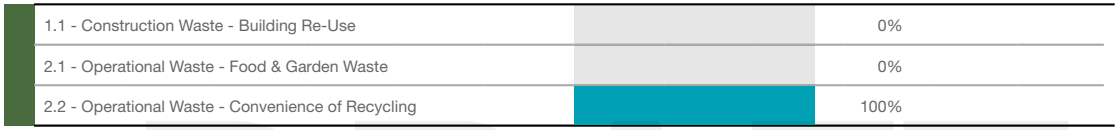
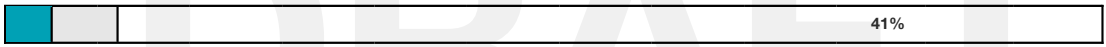


1.1 - Construction Waste - Building Re-Use	0%
2.1 - Operational Waste - Food & Garden Waste	0%
2.2 - Operational Waste - Convenience of Recycling	100%

Urban Ecology Overall contribution 5.5%



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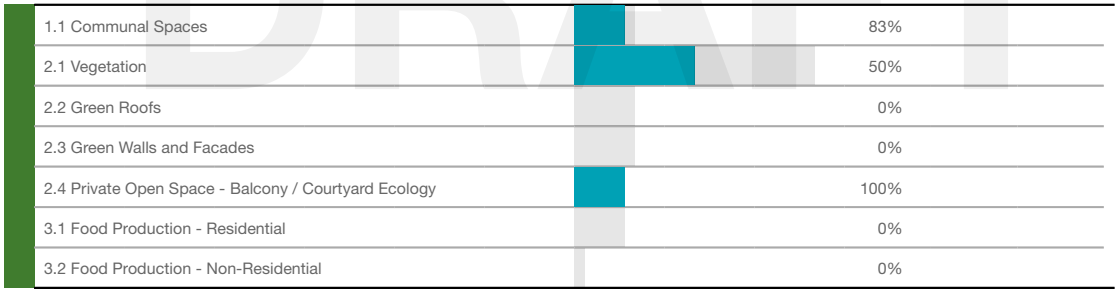
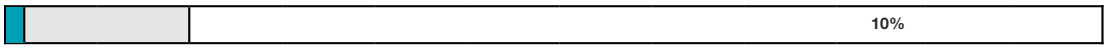


1.1 Communal Spaces	83%
2.1 Vegetation	50%
2.2 Green Roofs	0%
2.3 Green Walls and Facades	0%
2.4 Private Open Space - Balcony / Courtyard Ecology	100%
3.1 Food Production - Residential	0%
3.2 Food Production - Non-Residential	0%

Innovation Overall contribution 9.0%



10%

1.1 Innovation	10%

Credit breakdown

Management Overall contribution 2%

1.1 Pre-Application Meeting	0%
Score Contribution	This credit contributes 37.5% towards the category score.
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?
Question	Criteria Achieved ?
Project	No
2.2 Thermal Performance Modelling - Multi-Dwelling Residential	0%
Score Contribution	This credit contributes 20.8% towards the category score.
Criteria	Have preliminary NatHERS ratings been undertaken for all thermally unique dwellings?
Question	Criteria Achieved ?
Apartment	No
2.3 Thermal Performance Modelling - Non-Residential	50%
Score Contribution	This credit contributes 4.2% towards the category score.
Criteria	Has a preliminary facade assessment been undertaken in accordance with NCC2019 Section J1.5?
Question	Criteria Achieved ?
Office	Yes
Shop	Yes
Criteria	Has preliminary modelling been undertaken in accordance with either NCC2019 Section J (Energy Efficiency), NABERS or Green Star?
Question	Criteria Achieved ?
Office	No
Shop	No
3.1 Metering - Residential	100%
Score Contribution	This credit contributes 10.4% towards the category score.
Criteria	Have utility meters been provided for all individual dwellings?
Question	Criteria Achieved ?
Apartment	Yes
3.2 Metering - Non-Residential	100%
Score Contribution	This credit contributes 2.1% towards the category score.
Criteria	Have utility meters been provided for all individual commercial tenants?
Question	Criteria Achieved ?
Office	Yes
Shop	Yes

3.3 Metering - Common Areas	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
Office	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 ?
Project	Yes

Water Overall contribution 5% 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	Building 1
Showerhead: All	4 Star WELS (>= 6.0 but <= 7.5)
Bath: All	Scope out
Kitchen Taps: All	>= 6 Star WELS rating
Bathroom Taps: All	>= 6 Star WELS rating
Dishwashers: All	>= 5 Star WELS rating
WC: All	>= 4 Star WELS rating
Urinals: All	Scope out
Washing Machine Water Efficiency: All	Scope out
Which non-potable water source is the dwelling/space connected to?:	
One-bed Apartments Two-bed Apartments Three-bed Apartments	-1
Retail Commercial	Tank 1
Non-potable water source connected to Toilets:	
One-bed Apartments Two-bed Apartments Three-bed Apartments	No
Retail Commercial	Yes
Non-potable water source connected to Laundry (washing machine): All	No
Non-potable water source connected to Hot Water System: All	No
Rainwater Tank	
What is the total roof area connected to the rainwater tank?: Tank 1	779 m²
Tank Size: Tank 1	10,000 Litres
Irrigation area connected to tank: Tank 1	311 m²
Is connected irrigation area a water efficient garden?: Tank 1	Yes
Other external water demand connected to tank?: Tank 1	-

1.1 Potable water use reduction		40%
Score Contribution	This credit contributes 71.4% towards the category score.	
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances, rainwater use and recycled water use? To achieve points in this credit there must be >25% potable water reduction.	
Output	Reference	
Project	8364 kL	
Output	Proposed (excluding rainwater and recycled water use)	
Project	5780 kL	
Output	Proposed (including rainwater and recycled water use)	
Project	5296 kL	
Output	% Reduction in Potable Water Consumption	
Project	36 %	
Output	% of connected demand met by rainwater	
Project	83 %	
Output	How often does the tank overflow?	
Project	Very Often	
Output	Opportunity for additional rainwater connection	
Project	2019 kL	

3.1 Water Efficient Landscaping		100%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	Will water efficient landscaping be installed?	
Question	Criteria Achieved ?	
Project	Yes	

4.1 Building Systems Water Use Reduction		100%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	Where applicable, have measures been taken to reduce potable water consumption by >80% in the buildings air-conditioning chillers and when testing fire safety systems?	
Question	Criteria Achieved ?	
Project	Yes	

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:	Natural Gas
Are you installing a cogeneration or trigeneration system?:	No
Dwelling Energy Profiles	
Building: All	Building 1
Below the floor is: All	Another Occupancy
Above the ceiling is: All	Outside
Exposed sides: All	2
NatHERS Annual Energy Loads - Heat:	
One-bed Apartments	23.5 MJ/sqm
Two-bed Apartments	36.1 MJ/sqm
Three-bed Apartments	44.8 MJ/sqm
NatHERS Annual Energy Loads - Cool:	
One-bed Apartments	20.5 MJ/sqm
Two-bed Apartments	16.0 MJ/sqm
Three-bed Apartments	19.4 MJ/sqm
NatHERS star rating:	
One-bed Apartments	8.5
Two-bed Apartments	8.2
Three-bed Apartments	7.8
Type of Heating System: All	D Reverse cycle space
Heating System Efficiency: All	5 Star
Type of Cooling System: All	Refrigerative space

Cooling System Efficiency: All	5 Stars
Type of Hot Water System: All	H Gas Storage 7 star
% Contribution from solar hot water system: All	0 %
Is the hot water system shared by multiple dwellings?: All	Yes
Clothes Line: All	A No drying facilities
Clothes Dryer: All	A No clothes dryer

Non-Residential Building Energy Profile	
Heating, Cooling & Comfort Ventilation - Electricity - reference fabric and reference services:	-
Heating, Cooling & Comfort Ventilation - Electricity - proposed fabric and reference services:	-
Heating, Cooling & Comfort Ventilation - Electricity - proposed fabric and proposed services:	-
Heating - Gas - reference fabric and reference services:	0.0 MJ
Heating - Gas - proposed fabric and reference services:	0.0 MJ
Heating - Gas - proposed fabric and proposed services:	0.0 MJ
Heating - Wood - reference fabric and reference services:	-
Heating - Wood - proposed fabric and reference services:	-
Heating - Wood - proposed fabric and proposed services:	-
Hot Water - Electricity - Baseline:	-
Hot Water - Electricity - Proposed:	-
Hot Water - Gas - Baseline:	0.0 MJ
Hot Water - Gas - Proposed:	0.0 MJ
Lighting - Baseline:	-
Lighting - Proposed:	-
Peak Thermal Cooling Load - Baseline:	-
Peak Thermal Cooling Load - Proposed:	-

Solar Photovoltaic systems	
System Size (lesser of inverter and panel capacity):	
Common Area 1	7.0 kW peak
Common Area 2	2.0 kW peak
Common Area 3	1.0 kW peak
Orientation (which way is the system facing)?:	
Common Area 1	North
Common Area 2	North
Common Area 3	North
Inclination (angle from horizontal):	
Common Area 1	10.0 Angle (degrees)
Common Area 2	10.0 Angle (degrees)
Common Area 3	10.0 Angle (degrees)
Which Building Class does this apply to?:	
Common Area 1	Apartment
Common Area 2	Office
Common Area 3	Shop

1.1 Thermal Performance Rating - Non-Residential	37%
Score Contribution	This credit contributes 6.4% towards the category score.
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC 2019 Section J)?

1.2 Thermal Performance Rating - Residential	83%
Score Contribution	This credit contributes 23.6% towards the category score.
Criteria	What is the average NatHERS rating?
Output	Average NATHERS Rating (Weighted)
Apartment	8.2 Stars

2.1 Greenhouse Gas Emissions	100%
Score Contribution	This credit contributes 9.4% towards the category score.
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?
Output	Reference Building with Reference Services (BCA only)
Apartment	281,169 kg CO2
Output	Proposed Building with Proposed Services (Actual Building)
Apartment	110,121 kg CO2
Output	% Reduction in GHG Emissions
Apartment	60 %

2.2 Peak Demand	16%
Score Contribution	This credit contributes 4.7% 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	878 kW
Output	Peak Thermal Cooling Load - Proposed
Apartment	753 kW
Output	Peak Thermal Cooling Load - % Reduction
Apartment	14 %

2.3 Electricity Consumption	100%
Score Contribution	This credit contributes 9.4% towards the category score.
Criteria	What is the % reduction in annual electricity consumption against the benchmark?
Output	Reference
Apartment	235,819 kWh
Output	Proposed
Apartment	74,451 kWh
Output	Improvement
Apartment	68 %

2.4 Gas Consumption	100%
Score Contribution	This credit contributes 9.4% towards the category score.
Criteria	What is the % reduction in annual gas consumption against the benchmark?
Output	Reference
Apartment	790,539 MJ
Output	Proposed
Apartment	665,006 MJ
Output	Improvement
Apartment	15 %

3.1 Carpark Ventilation	0%
Score Contribution	This credit contributes 9.4% towards the category score.
Criteria	If you have an enclosed carpark, is it: (a) fully naturally ventilated (no mechanical ventilation system) or (b) 40 car spaces or less with Carbon Monoxide monitoring to control the operation and speed of the ventilation fans?
Question	Criteria Achieved ?
Project	No

3.2 Hot Water	100%
Score Contribution	This credit contributes 4.7% towards the category score.
Criteria	What is the % reduction in annual energy consumption (gas and electricity) of the hot water system against the benchmark?
Output	Reference
Apartment	219,594 kWh
Output	Proposed
Apartment	194,231 kWh
Output	Improvement
Apartment	11 %

3.4 Clothes Drying	0%
Score Contribution	This credit contributes 3.9% towards the category score.
Criteria	What is the % reduction in annual energy consumption (gas and electricity) from a combination of clothes lines and efficient driers against the benchmark?
Output	Reference
Apartment	31,379 kWh
Output	Proposed
Apartment	31,379 kWh
Output	Improvement
Apartment	0 %

3.6 Internal Lighting - Residential Multiple Dwellings		100%	
Score Contribution	This credit contributes 7.9% towards the category score.		
Criteria	Is the maximum illumination power density (W/m2) in at least 90% of the relevant building class at least 20% lower than required by Table J6.2a of the NCC 2019 Vol 1 (Class 2-9) and Clause 3.12.5.5 NCC 2019 Vol 2 (Class 1 & 10)?		
Question	Criteria Achieved ?		
Apartment	Yes		

3.7 Internal Lighting - Non-Residential		100%	
Score Contribution	This credit contributes 1.6% towards the category score.		
Criteria	Does the maximum illumination power density (W/m2) in at least 90% of the area of the relevant building class meet the requirements in Table J6.2a of the NCC 2019 Vol 1?		
Question	Criteria Achieved ?		
Office	Yes		
Shop	Yes		

4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A	✧ Scoped Out
This credit was scoped out	No cogeneration or trigeneration system in use.		

4.2 Renewable Energy Systems - Solar		13%	
Score Contribution	This credit contributes 4.7% towards the category score.		
Criteria	What % of the estimated energy consumption of the building class it supplies does the solar power system provide?		
Output	Solar Power - Energy Generation per year		
Apartment	8,483 kWh		
Office	2,424 kWh		
Shop	1,212 kWh		
Output	% of Building's Energy		
Apartment	3 %		
Office	10 %		
Shop	4 %		

4.4 Renewable Energy Systems - Other		N/A	⊘ Disabled
This credit is disabled	No other (non-solar PV) renewable energy is in use.		

Stormwater

Overall contribution 14% Minimum required 100%

Which stormwater modelling are 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 13% 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?:	Provide our own calculations

1.1 Daylight Access - Living Areas	100%
Score Contribution	This credit contributes 19.4% towards the category score.
Criteria	What % of living areas achieve a daylight factor greater than 1%
Annotation	Daylight for the development was assessed using the Daylight Autonomy methodology. Modelling protocol and compliance requirements as per the Green Star Buildings v1.1 tool. 100% of the apartments achieve the minimum threshold for daylighting (160lux for 80% of Daylight Hours across 60% of Area Refer Daylight Report
Question	Percentage Achieved ?
Apartment	100 %

1.2 Daylight Access - Bedrooms	100%
Score Contribution	This credit contributes 19.4% towards the category score.
Criteria	What % of bedrooms achieve a daylight factor greater than 0.5%
Question	Percentage Achieved ?
Apartment	100 %

1.3 Winter Sunlight	0%
Score Contribution	This credit contributes 6.5% towards the category score.
Criteria	Do 70% of dwellings receive at least 3 hours of direct sunlight in all Living areas between 9am and 3pm in mid-winter?
Question	Criteria Achieved ?
Apartment	No

1.4 Daylight Access - Non-Residential	58% ✔ Achieved
Score Contribution	This credit contributes 7.9% towards the category score.
Criteria	What % of the nominated floor area has at least 2% daylight factor?
Annotation	Daylight for the development was assessed using the Daylight Autonomy methodology. Modelling protocol and compliance requirements as per the Green Star Buildings v1.1 tool. Commercial: 498.5sqm out of a total 862.8sqm comply: 57.8%. Retail: 265.1sqm out of a total of 416.6sqm comply: 63.6% Refer Daylighting report by Meinhardt
Question	Percentage Achieved?
Office	46 %
Shop	99 %

1.5 Daylight Access - Minimal Internal Bedrooms		100%	
Score Contribution	This credit contributes 6.5% towards the category 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		66%	
Score Contribution	This credit contributes 19.4% towards the category score.		
Criteria	What % of dwellings are effectively naturally ventilated?		
Question	Percentage Achieved?		
Apartment	61 %		
2.3 Ventilation - Non-Residential		88%	✔ Achieved
Score Contribution	This credit contributes 7.9% towards the category score.		
Criteria	What % of the regular use areas are effectively naturally ventilated?		
Question	Percentage Achieved?		
Office	0 %		
Shop	0 %		
Criteria	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668.2:2012?		
Question	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668:2012?		
Office	100 %		
Shop	100 %		
Criteria	What CO_2 concentrations are the ventilation systems designed to achieve, to monitor and to maintain?		
Question	Value		
Office	700 ppm		
Shop	700 ppm		
3.4 Thermal comfort - Shading - Non-residential		0%	
Score Contribution	This credit contributes 3.9% towards the category score.		
Criteria	What percentage of east, north and west glazing to regular use areas is effectively shaded?		
Question	Percentage Achieved?		
Office	-		
Shop	-		
3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%	
Score Contribution	This credit contributes 1.3% towards the category score.		
Criteria	What percentage of regular use areas in tenancies have ceiling fans?		
Question	Percentage Achieved?		
Office	0 %		
Shop	0 %		

4.1 Air Quality - Non-Residential	100%
Score Contribution	This credit contributes 7.8% towards the category score.
Criteria	Do all paints, sealants and adhesives meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Project	Yes
Criteria	Does all carpet meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Project	Yes
Criteria	Does all engineered wood meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Project	Yes

Transport Overall contribution 6%

1.1 Bicycle Parking - Residential	100%
Score Contribution	This credit contributes 18.8% towards the category score.
Criteria	How many secure and undercover bicycle spaces are there per dwelling for residents?
Question	Bicycle Spaces Provided ?
Apartment	70
Output	Min Bicycle Spaces Required
Apartment	70

1.2 Bicycle Parking - Residential Visitor	100%
Score Contribution	This credit contributes 18.8% towards the category score.
Criteria	How many secure bicycle spaces are there per 5 dwellings for visitors?
Question	Visitor Bicycle Spaces Provided ?
Apartment	14
Output	Min Visitor Bicycle Spaces Required
Apartment	14

1.3 Bicycle Parking - Convenience Residential	0%
Score Contribution	This credit contributes 9.4% towards the category score.
Criteria	Are bike parking facilities for residents located at ground or entry level?
Question	Criteria Achieved ?
Apartment	No

1.4 Bicycle Parking - Non-Residential	100%
Score Contribution	This credit contributes 3.8% towards the category score.
Criteria	Have the planning scheme requirements for employee bicycle parking been exceeded by at least 50% (or a minimum of 2 where there is no planning scheme requirement)?
Question	Criteria Achieved ?
Office	Yes
Shop	Yes
Question	Bicycle Spaces Provided ?
Office	1
Shop	1

1.5 Bicycle Parking - Non-Residential Visitor	100%
Score Contribution	This credit contributes 1.9% towards the category score.
Criteria	Have the planning scheme requirements for visitor bicycle parking been exceeded by at least 50% (or a minimum of 1 where there is no planning scheme requirement)?
Question	Criteria Achieved ?
Office	Yes
Shop	Yes
Question	Bicycle Spaces Provided ?
Office	1
Shop	0

1.6 End of Trip Facilities - Non-Residential	0%
Score Contribution	This credit contributes 1.9% towards the category score.
Criteria	Where adequate bicycle parking has been provided. Is there also: * 1 shower for the first 5 employee bicycle spaces plus 1 to each 10 employee bicycles spaces thereafter, * changing facilities adjacent to showers, and * one secure locker per employee bicycle space in the vicinity of the changing / shower facilities?
Question	Number of showers provided ?
Office	-
Shop	-
Question	Number of lockers provided ?
Office	-
Shop	-
Output	Min Showers Required
Office	1
Shop	1
Output	Min Lockers Required
Office	1
Shop	1

2.1 Electric Vehicle Infrastructure	100%
Score Contribution	This credit contributes 22.6% towards the category score.
Criteria	Are facilities provided for the charging of electric vehicles?
Question	Criteria Achieved ?
Project	Yes

2.2 Car Share Scheme	0%
Score Contribution	This credit contributes 11.3% 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 11.3% 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 ?
Project	No

Waste Overall contribution 2%

1.1 - Construction Waste - Building Re-Use	0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	If the development is on a site that has been previously developed, has at least 30% of the existing building been re-used?
Question	Criteria Achieved ?
Project	No

2.1 - Operational Waste - Food & Garden Waste	0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are facilities provided for on-site management of food and garden waste?
Question	Criteria Achieved ?
Project	No

2.2 - Operational Waste - Convenience of Recycling	100%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are the recycling facilities at least as convenient for occupants as facilities for general waste?
Question	Criteria Achieved ?
Project	Yes

Urban Ecology Overall contribution 2%

1.1 Communal Spaces		83%
Score Contribution	This credit contributes 11.3% towards the category score.	
Criteria	Is there at least the following amount of common space measured in square meters : * 1m² for each of the first 50 occupants * Additional 0.5m² for each occupant between 51 and 250 * Additional 0.25m² for each occupant above 251?	
Question	Common space provided	
Apartment	194 m²	
Office	0.0 m²	
Shop	0.0 m²	
Output	Minimum Common Space Required	
Apartment	90 m²	
Office	55 m²	
Shop	22 m²	
2.1 Vegetation		50%
Score Contribution	This credit contributes 45.3% towards the category score.	
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?	
Annotation	311.1sqm garden beds / 1639sqm total site area = 19%	
Question	Percentage Achieved ?	
Project	19 %	
2.2 Green Roofs		0%
Score Contribution	This credit contributes 11.3% towards the category score.	
Criteria	Does the development incorporate a green roof?	
Question	Criteria Achieved ?	
Project	No	
2.3 Green Walls and Facades		0%
Score Contribution	This credit contributes 11.3% towards the category score.	
Criteria	Does the development incorporate a green wall or green façade?	
Question	Criteria Achieved ?	
Project	No	
2.4 Private Open Space - Balcony / Courtyard Ecology		100%
Score Contribution	This credit contributes 9.4% 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 9.4% towards the category score.	
Criteria	What area of space per resident is dedicated to food production?	
Question	Food Production Area	
Apartment	-	
Output	Min Food Production Area	
Apartment	33 m²	

3.2 Food Production - Non-Residential		0%
Score Contribution	This credit contributes 1.9% towards the category score.	
Criteria	What area of space per occupant is dedicated to food production?	
Question	Food Production Area	
Office	-	
Shop	-	
Output	Min Food Production Area	
Office	16 m²	
Shop	6 m²	

Innovation

Overall contribution 1%

Innovation		
Description: Ultra-low VOC paint	Ultra-low VOC paints for all internal walls and ceilings (as per Green Star innovation credit)	
Points Targeted: Ultra-low VOC paint	1	

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

Note

This is a DRAFT and not suitable for submission to council.

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