WOOLWORTHS STRATHFIELDSAYE

SUSTAINABILITY MANAGEMENT PLAN

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DOCUMENT PROPERTIES

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DESCRIPTION: Sustainability Management Plan

PROJECT NAME: Woolworths Strathfieldsaye

PROJECT NUMBER: 26042

DOCUMENT AMENDMENTS

REVISION	DETAILS	AUTHOR/S	DATE	REVIEWED BY
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02	Issue for town planning	PK/GS	17/09/2025	KG
03	Revised Scheme	PK	13/02/2026	AK
04	Update Car Park Numbers	PK	13/02/2025	AK

CONTENTS

1 INTRODUCTION 4
1.1 SITE DESCRIPTION 4
1.2 DEVELOPMENT SUMMARY 5
1.3 COUNCIL PLANNING REQUIREMENTS 5
1.4 REFERENCE DOCUMENTATION 5
2 ESD ASSESSMENT 6
2.1 INDOOR ENVIRONMENT QUALITY 6
2.2 ENERGY EFFICIENCY 7
2.3 WATER EFFICIENCY 8
2.4 STORMWATER MANAGEMENT 9
2.5 BUILDING MATERIALS 9
2.6 TRANSPORT 10
2.7 WASTE MANAGEMENT 10
2.8 URBAN ECOLOGY 11
2.9 CONSTRUCTION AND BUILDING MANAGEMENT 11
3 BESS ASSESSMENT 12
APPENDIX A – VOC & FORMALDEHYDE LIMITS 13
APPENDIX B – DAYLIGHT ASSESSMENT 15
APPENDIX B – SECTION J ASSESSMENT 16
APPENDIX C – BESS ASSESSMENT 19

1 INTRODUCTION

This Sustainability Management Plan (SMP) has been prepared to assist the design, construction and operation of the proposed industrial development at the intersection of Apsley Lane and Blucher Street Strathfieldsaye to achieve a range of best-practice sustainable development objectives.

WRAP Engineering have assessed the proposed plans and provided input to the design team.
This SMP captures initiatives necessary to ensure that the development meets the sustainability requirements of the City of Greater Bendigo, in particular the ESD requirements of the following proposed Planning Clause:

- 15.01-2L "Environmentally Sustainable Development".
- 53.18 "Stormwater Management in Urban Development

1.1 SITE DESCRIPTION

The site at the intersection of Apsley Lane and Blucher Street Strathfieldsaye has an area of approximately 14,642m² consisting of a Woolworths supermarket (3,366m²), Special Retail (924m²). The proposed site is currently occupied by a commercial building which will be demolished prior to the construction of the project.

Figure 1 Subject site (source Google Maps)

1.2 DEVELOPMENT SUMMARY

The proposed development will comprise:

- Woolworths supermarket
- Special Retail Premises
- On grade car park with 191 spaces and shade sails
- End of trip facilities for retail staff
- Loading dock and home delivery facilities

1.3 COUNCIL PLANNING REQUIREMENTS

The City of Greater Bendigo expects new developments to be designed, built and maintained at a level that reflects best practice sustainable development outcomes in accordance to 15.01-2L (Environmentally Sustainable Design) in the City of Greater Bendigo Planning Scheme. The ESD response will need to ensure that the design meets sustainability targets in the areas of energy reduction, water use reduction and water sensitive urban design, indoor environment quality, materials selection, transportation, waste management and urban ecology.

The City of Greater Bendigo encourages the implementation of SDAPP to enhance the sustainability of the built environment. For this project, the SDAPP framework on the 10 Key Sustainable Building Categories will be addressed. These categories are as follows:

- Energy Efficiency;
- Water Efficiency;
- Stormwater Management;
- Indoor Environment Quality;
- Building Materials;
- Construction and Waste Management;
- Transport;
- Urban Ecology;
- Building Management; and
- Innovation.

The council's Planning Scheme also encourages the use of relevant ESD tools to assess the proposed development. For this project, the following tools will be used:

- Built Environment Sustainability Scorecard (BESS) – a holistic sustainability assessment tool

This SMP incorporates initiatives to ensure that the council's ESD requirements are satisfied by addressing the Key Sustainable Building Categories, demonstrating that council's Best Practice Standards will be achieved, and using relevant and appropriate ESD assessment tools.

1.4 REFERENCE DOCUMENTATION

This SMP should be read in conjunction with the other relevant documentation included within the development's town planning submission to council. These documents may include the following:

- Architectural documentation
- Landscape plans
- Stormwater Management Plan
- Waste Management Plan
- Traffic engineer's report, transport plan.

2 ESD ASSESSMENT

The following sections outline the ESD assessment which has been completed for the project. The assessment is presented within the Key Sustainable Building Categories, and for each item following information is provided:

1. A short description of the ESD initiative and/or the project's design response;
2. The nominated party responsible for implementation of the initiative; and
3. The stage of the project at which implementation could be demonstrated.

Within this assessment, the level of detail that has been provided is generally in proportion to what is appropriate or practicable at this early stage of design. This is described or explained within each item, with future commitments included as appropriate.

2.1 INDOOR ENVIRONMENT QUALITY

2.1.1 OBJECTIVES

- *To achieve a healthy indoor environment quality for the wellbeing of building occupants.*
- *To provide a naturally comfortable indoor environment will lower the need for building services, such as artificial lighting, mechanical ventilation and cooling and heating devices.*

2.1.2 DEVELOPMENT RESPONSE

ESD INITIATIVE	RESPONSIBILITY & IMPLEMENTATION	PROJECT STAGE
Volatile Organic Compounds All carpets, paints, adhesives and sealants and carpets will not exceed the limits outlined in Appendix A.	Architect Services Engineer	Contract Documentation
Formaldehyde All engineered wood products will have 'low' formaldehyde emissions, certified as E0 or better, or will not exceed the limits outlined in Appendix A.	Architect	Contract Documentation
Daylight High-VLT (> 40%) glazing will be specified for the development. A preliminary daylight assessment using the Green Star hand calculation methodology has been completed for the project: The results from this assessment indicate that 82% the Specialty Retail NLA will achieve a Daylight Factor of at least 2%. Please refer to Appendix B for details.	Architect	Contract Documentation
Effective Ventilation Commercial tenancies will be provided with 50% extra outdoor air compared to the minimum required by AS 1668:2012.	Architect	Contract Documentation

2.2 ENERGY EFFICIENCY

2.2.1 OBJECTIVES:

- *To ensure the efficient use of energy.*
- *To reduce total operating greenhouse emissions.*
- *To reduce energy peak demand.*
- *To reduce associated energy costs.*

2.2.2 DEVELOPMENT RESPONSE

ESD INITIATIVE	RESPONSIBILITY & IMPLEMENTATION	PROJECT STAGE
Metering Utility meters (electrical and water) will be provided for all individual tenancies and common areas of the development.	Services consultant	Design Development
Heating and Cooling Systems Commercial heating and cooling systems will be within one Star of the most efficient equivalent capacity unit available (or equivalent EER/COP).	Services consultant	Design Development
Hot Water Unit Hot water unit will be within one star of the best available, or 85% or better than the most efficient equivalent capacity unit.	Services consultant	Design Development
Energy Efficiency The project is targeting the following minimum energy saving strategy: -All floors and ceilings (forming part of the envelope) demonstrate meeting the required NCC2022 insulation levels -All wall and glazing demonstrate meeting or improving upon the NCC2022 facade calculator. Please refer to Appendix B for details.	Architect ESD Consultant	Design Development
Artificial Lighting - The maximum illumination power density (W/m2) in at least 90% of the area of the non-residential spaces will meet the requirements in Table J7D3a of the NCC 2022 Vol 1 - External and common area lighting systems will use daylight and occupancy sensors to control lighting energy usage.	Services Engineer	Contract Documentation
On-site Renewable Energy NCC 2022 requires a minimum of 20% of the roof area must remain unobstructed for potential installation of PV panels in the future, the main electrical switchboard should be engineered to handle a capacity equivalent to this requirement. Refer Section J-J9D5 of the NCC. The project will install a solar PV array with a capacity of at least 20 kW on the available roof area and building services plant. The final sizing will be coordinated during the design development phase.	Services Engineer	Contract Documentation
Energy Metering – Electricity All major base-building systems will be individually sub-metered and interfaced with the BMS to allow for effective building tuning.	Services Engineer	Contract Documentation

2.3 WATER EFFICIENCY

2.3.1 OBJECTIVES:

- *To ensure the efficient use of water.*
- *To reduce total operating potable water use.*
- *To encourage the collection and reuse of stormwater.*
- *To encourage the appropriate use of alternative water sources (e.g. grey water).*
- *To minimise associated water costs.*

2.3.2 DEVELOPMENT RESPONSE

<table>
<tr><th>ESD INITIATIVE</th><th>RESPONSIBILITY & IMPLEMENTATION</th><th>PROJECT STAGE</th></tr>
<tr><td>Water Fixtures and Fittings
The following Water Efficiency Labelling Scheme (WELS) star ratings will be specified:
- Toilets: 4 Star;
- Taps (bathroom and kitchen): 6 Star;
- Showerheads: 4 Star (7.5 L/min);
- Urinals: 5 Star and
- Dishwashers: 5 Star.</td><td>Architect</td><td>Contract Documentation</td></tr>
<tr><td>Rainwater Collection and Reuse
Rainwater harvesting for non-potable uses will be implemented as a water saving initiative. The details of this system for this development are as follows:
<table><tr><th>RWT</th><th>Size</th><th>Catchment</th><th>Re-use</th></tr><tr><td>1</td><td>30 kL</td><td>Roof</td><td>Toilet flushing, irrigation</td></tr></table>– Rainwater tank location: On Ground
– Supermarket roof catchment area: 1,500 Sq.m</td><td>Architect
Services Engineer</td><td>Design Development</td></tr>
<tr><td>Landscape Irrigation
Landscaping will use water-efficient irrigation systems as appropriate to each application.</td><td>Services Engineer
Landscape</td><td>Contract Documentation</td></tr>
<tr><td>Fire System Test Water
The fire water test system will not expel water for testing, or the fire systems will include temporary storage for 80% of the routine fire protection system test water and maintenance drain-downs for reuse on site.</td><td>Services Engineer</td><td>Contract Documentation</td></tr>
<tr><td>Metering
Utility meters (electrical and water) will be provided for all individual tenancies and common areas of the development.</td><td>Services consultant</td><td>Design Development</td></tr>
</table>

2.4 STORMWATER MANAGEMENT

2.4.1 OBJECTIVES:

- *To reduce the impact of stormwater run-off.*
- *To improve the water quality of stormwater run-off.*
- *To achieve best practice stormwater quality outcomes.*
- *To incorporate water sensitive urban design principles.*

2.4.2 DEVELOPMENT RESPONSE

ESD INITIATIVE	RESPONSIBILITY & IMPLEMENTATION	PROJECT STAGE
Stormwater Pollution Reduction The project will reduce stormwater discharge through rainwater harvesting and proprietary treatment. Please refer to civil report for details.	Architect Civil Engineer	Contract Documentation

2.5 BUILDING MATERIALS

2.5.1 OBJECTIVES:

- *To minimise the environmental impacts materials used by encouraging the use of materials with a favourable lifecycle assessment based on the following factors:*
  - *Fate of material*
  - *Recycling/Reuse*
  - *Embodied energy*
  - *Biodiversity*
  - *Human health*
  - *Environmental toxicity*
  - *Environmental responsibility.*

2.5.2 DEVELOPMENT RESPONSE

ESD INITIATIVE	RESPONSIBILITY & IMPLEMENTATION	PROJECT STAGE
Refrigerants All HVAC refrigerants used in the development will be selected to have an Ozone Depletion Potential (ODP) of zero.	Services Engineer	Contract Documentation
Construction Waste Management The contractor will prepare a construction waste management plan for the project and will divert at least 80% of all demolition and construction waste from landfill.	Contractor	Construction

2.6 TRANSPORT

2.6.1 OBJECTIVES:

- *To minimise car dependency.*
- *To ensure that the built environment is designed to promote the use of public transport, walking and cycling.*

2.6.2 DEVELOPMENT RESPONSE

<table>
<tr><th>ESD INITIATIVE</th><th>RESPONSIBILITY & IMPLEMENTATION</th><th>PROJECT STAGE</th></tr>
<tr><td>Active Transport Facilities
The development will include the following facilities to support active transport:
<table>
<tr><th colspan="4">EOT SUMMARY</th></tr>
<tr><th>Item</th><th>Item</th><th>Quantity</th><th>Total</th></tr>
<tr><td rowspan="2">Staff bicycle parking</td><td>Supermarket</td><td>6</td><td rowspan="2">9</td></tr>
<tr><td>Specialty Retail</td><td>3</td></tr>
<tr><td rowspan="2">Visitors' bicycle parking</td><td>Supermarket</td><td>7</td><td rowspan="2">9</td></tr>
<tr><td>Specialty Retail</td><td>2</td></tr>
<tr><td rowspan="2">Showers</td><td>Supermarket</td><td>2</td><td rowspan="2">2</td></tr>
<tr><td>Specialty Retail</td><td>0</td></tr>
<tr><td rowspan="2">Lockers</td><td>Supermarket</td><td>6</td><td rowspan="2">9</td></tr>
<tr><td>Specialty Retail</td><td>3</td></tr>
</table></td><td>Architect</td><td>Design Documentation</td></tr>
</table>

2.7 WASTE MANAGEMENT

2.7.1 OBJECTIVES:

- To ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development.
- To ensure long term reusability of building materials.

2.7.2 DEVELOPMENT RESPONSE

ESD INITIATIVE	RESPONSIBILITY & IMPLEMENTATION	PROJECT STAGE
Operational Waste – Food and Garden Waste Food and garden waste facilities will be located on-site to manage organic waste.	Architect & Waste Consultant	Contract Documentation
Operational Waste – Convenience of Recycling A dedicated area will be allocated for the separation and collection of recyclable waste. Recycling facilities will be separated from general waste but will be co-located to provide convenient access to recycling.	Architect & Waste Consultant	Contract Documentation

2.8 URBAN ECOLOGY

2.8.1 OBJECTIVES:

- *To protect and enhance biodiversity.*
- *To provide sustainable landscaping.*
- *To protect and manage all remnant indigenous plant communities.*
- *To encourage the planting of indigenous vegetation.*

2.8.2 DEVELOPMENT RESPONSE

ESD INITIATIVE	RESPONSIBILITY & IMPLEMENTATION	PROJECT STAGE
Vegetation Water efficient Landscaping of at least 3% of the site area with a variety of native species will be provided.	Landscape	Contract Documentation

2.9 CONSTRUCTION AND BUILDING MANAGEMENT

2.9.1 OBJECTIVES:

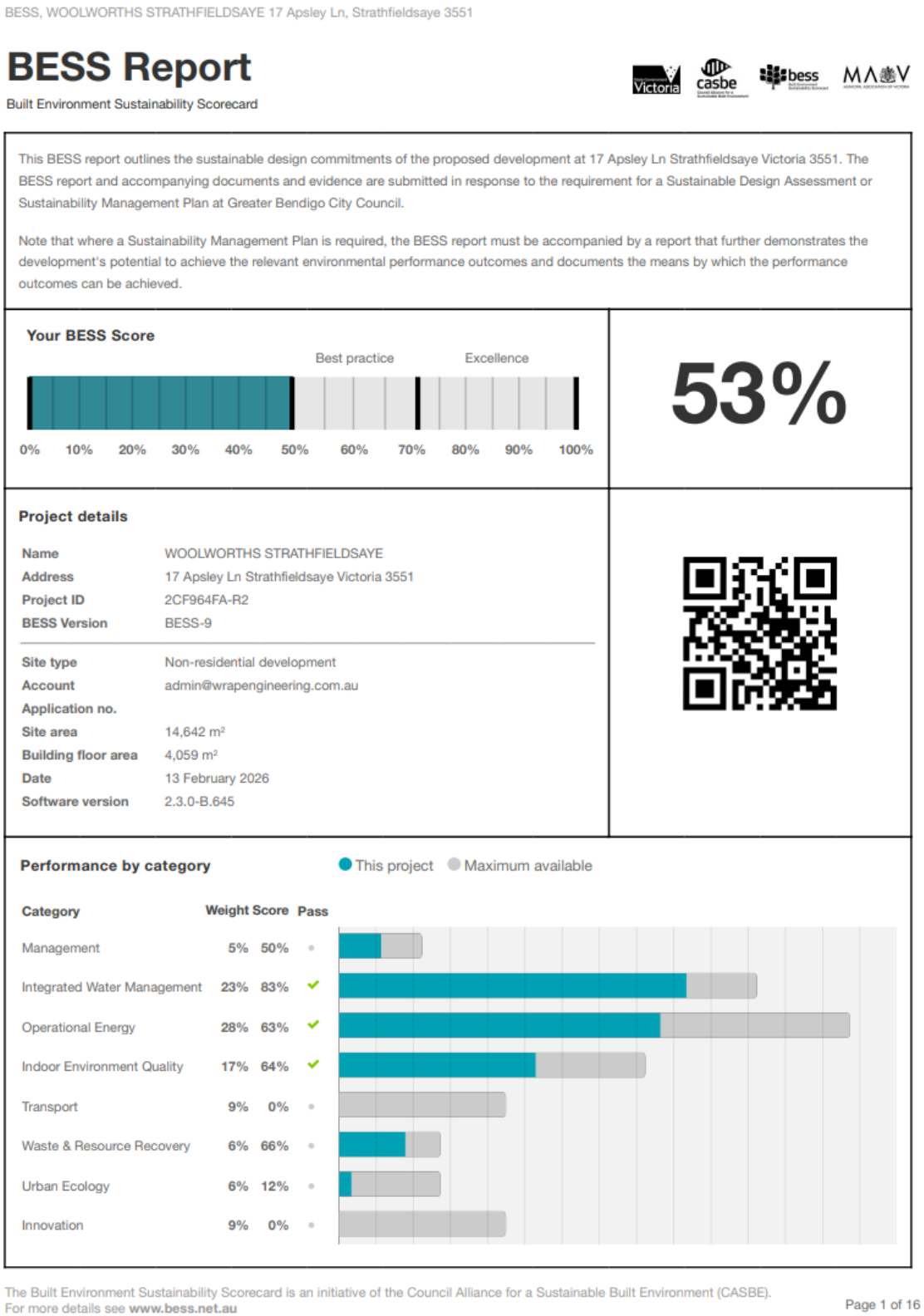
- *To encourage a holistic and integrated design and construction process and ongoing high performance.*

2.9.2 DEVELOPMENT RESPONSE

ESD INITIATIVE	RESPONSIBILITY & IMPLEMENTATION	PROJECT STAGE
Construction Environmental Management The contractor will prepare and implement a project specific EMP at the start of construction. The EMP will be developed in accordance with the NSW Environmental Management Systems Guidelines or equivalent.	Contractor	Construction
Building Information Prior to occupancy, a package of building information will be developed and handed over to the building manager. This will include as-built drawings, operations and maintenance manuals, and supplier and warranty details.	Contractor	Construction

3 BESS ASSESSMENT

A summary of the BESS results is presented below. For full details of the project's BESS assessment, please refer to the online portal.



BESS, WOOLWORTHS STRATHFIELDSAYE 17 Apsley Ln, Strathfieldsaye 3551

BESS Report

Built Environment Sustainability Scorecard

This BESS report outlines the sustainable design commitments of the proposed development at 17 Apsley Ln Strathfieldsaye Victoria 3551. 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 Greater Bendigo 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.

Your BESS Score

Best practice Excellence

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

53%

Project details

Name	WOOLWORTHS STRATHFIELDSAYE
Address	17 Apsley Ln Strathfieldsaye Victoria 3551
Project ID	2CF964FA-R2
BESS Version	BESS-9
Site type	Non-residential development
Account	admin@wrapengineering.com.au
Application no.	
Site area	14,642 m²
Building floor area	4,059 m²
Date	13 February 2026
Software version	2.3.0-B.645

Performance by category

This project Maximum available

Category	Weight	Score	Pass
Management	5%	50%	•
Integrated Water Management	23%	83%	✓
Operational Energy	28%	63%	✓
Indoor Environment Quality	17%	64%	✓
Transport	9%	0%	•
Waste & Resource Recovery	6%	66%	•
Urban Ecology	6%	12%	•
Innovation	9%	0%	•

The Built Environment Sustainability Scorecard is an initiative of the Council Alliance for a Sustainable Built Environment (CASBE).
For more details see **www.bess.net.au**

Page 1 of 16

Figure 2: BESS Summary Results

APPENDIX A – VOC & FORMALDEHYDE LIMITS

VOC LIMITS – PAINTS, ADHESIVES & SEALANTS

PRODUCT CATEGORY	MAX. TVOC (g/L OF READY TO USE PRODUCT)
General purpose adhesives and sealants	50
Interior wall and ceiling paint, all sheen levels	16
Trim, varnishes and wood stains	75
Primers, sealers and prep coats	65
One and two pack performance coatings for floors	140
Acoustic sealants, architectural sealant, waterproofing membranes and sealant, fire retardant sealants and adhesives	250
Structural glazing adhesive, wood flooring and laminate adhesives and sealants	100

VOC LIMITS – CARPETS

COMPLIANCE OPTIONS	COMPLIANCE CRITERIA
A – PRODUCT CERTIFICATION	The product is certified under a recognised Product Certification Scheme (listed on the GBCA website http://new.gbca.org.au/product-certification-schemes/) or other recognised standards. The certificate must be current at the time of project registration or submission and list the relevant product name and model.
B – LABORATORY TESTING	ASTM D5116: - Total VOC limit: 0.5mg/m^2 per hour, & - 4-PC limit: 0.05mg/m^2 per hour ISO 16000 / EN 13419: - TVOC at three days: 0.5mg/m^2 per hour ISO 10580 / ISO/TC 219 (Document N238): - TVOC at 24 hours: 0.5mg/m^2 per hour

FORMALDEHYDE LIMITS

TEST PROTOCOL	EMISSION LIMIT/ UNIT OF MEASUREMENT
AS/NZS 2269:2004, testing procedure AS/NZS 2098.11:2005 method 10 for Plywood	≤1mg/ L
AS/NZS 1859.1:2004 - Particle Board, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1.5 mg/L
AS/NZS 1859.2:2004 - MDF, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1mg/ L
AS/NZS 4357.4 - Laminated Veneer Lumber (LVL)	≤1mg/ L
Japanese Agricultural Standard MAFF Notification No.701 Appendix Clause 3 (11) - LVL	≤1mg/ L
JIS A 5908:2003- Particle Board and Plywood, with use of testing procedure JIS A 1460	≤1mg/ L
JIS A 5905:2003 - MDF, with use of testing procedure JIS A 1460	≤1mg/ L
JIS A1901 (not applicable to Plywood, applicable to high pressure laminates and compact laminates)	≤0.1 mg/m²hr
ASTM D5116 (applicable to high pressure laminates and compact laminates)	≤0.1 mg/m²hr
ISO 16000 part 9, 10 and 11 (also known as EN 13419), applicable to high pressure laminates and compact laminates	≤0.1 mg/m²hr (at 3 days)
ASTM D6007	≤0.12mg/m³
ASTM E1333	≤0.12mg/m³
EN 717-1 (also known as DIN EN 717-1)	≤0.12mg/m³
EN 717-2 (also known as DIN EN 717-2)	≤3.5mg/m²hr

APPENDIX B – DAYLIGHT ASSESSMENT

NON-RESIDENTIAL DAYLIGHT

A daylight assessment of the building's non-residential primary spaces has been completed in accordance with the GBCA *Green Star Daylight Hand and Views Calculation Guide*, to estimate the areas which will receive a daylight factor of at least 2%.

Under this assessment methodology, there is a requirement that the project must specify glazing with Visible Light Transmission (VLT) at least 40%.

The supermarket has been excluded from daylight assessment to ensure the space can efficiently regulate temperature and humidity levels and protect certain products from direct sunlight to maintain quality and shelf life.

Results Summary:

SPACE TYPE	NOMINATED FLOOR AREA (m²)	DAYLIGHT COMPLIANT AREA (m²)
Specialty Retail	924	756
Overall Compliance	82%	

Image of the daylight "zone of compliance" levels is presented below:

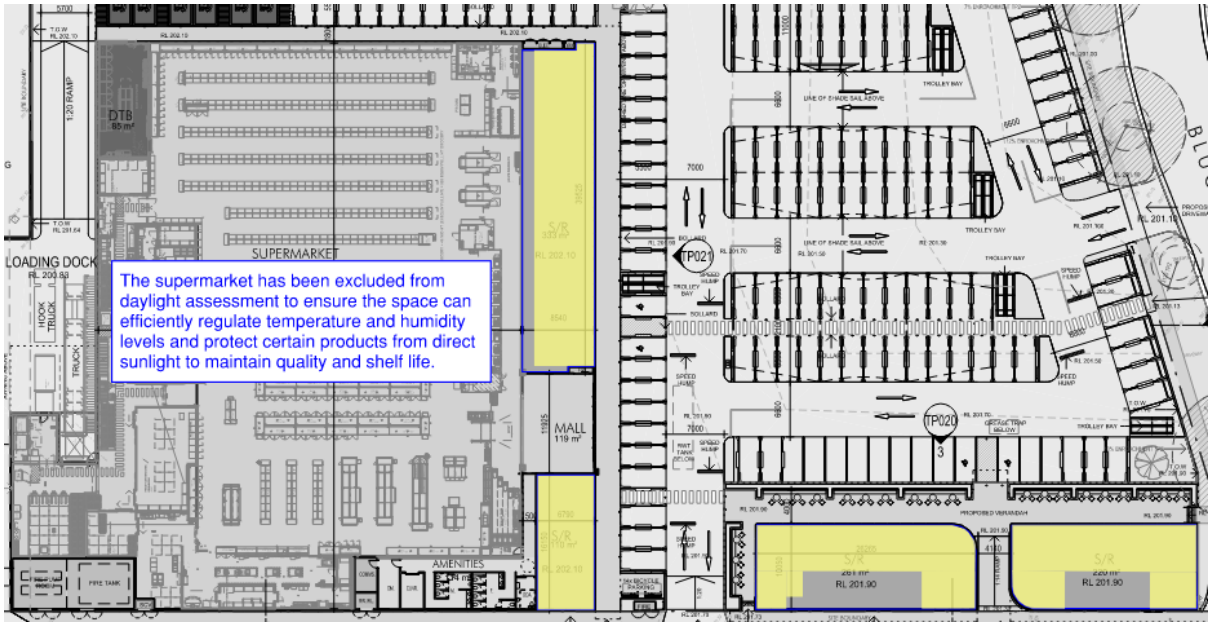


Figure 3 Daylight compliant area for ground floor Speciality Retail.

APPENDIX B – SECTION J ASSESSMENT

A preliminary Section J assessment has been undertaken for the retail and common areas within the development. These calculations have been prepared in order to estimate compliance against the NCC2022 targets, using the Section J calculations.

NCC SCOPE

This assessment addresses the following parts of the NCC only:

- Part J4 – Building Fabric
- Part J5 – Building Sealing

CLASSIFICATIONS

This assessment assumes the following:

- NCC 2022
- Building Class 6- Retail and Supermarket
- Climate Zone 6

BUILDING FABRIC

Table 1 provides a summary of the construction details and minimum thermal insulation requirements for the façade elements within the building. It is the responsibility of the architect to document these and the contractor to ensure that the final design is constructed in accordance with these requirements.

Table 1: Construction and insulation requirements

ELEMENT	NCC SECTION J REQUIREMENTS
Thermal Constructions	**General Insulation:** Must comply with AS/NZS 4859.1 and be installed so that it— abuts or overlaps adjoining insulation other than at supporting members such as studs, noggings, joists, furring channels and the like where the insulation must be against the member; and forms a continuous barrier with ceilings, walls, bulkheads, floors or the like that inherently contribute to the thermal barrier; and does not affect the safe or effective operation of a service or fitting. **Reflective Insulation:** Must be installed with— (i) the necessary airspace to achieve the required R-Value between a reflective side of the reflective insulation and a building lining or cladding; and (ii) the reflective insulation closely fitted against any penetration, door or window opening; and (iii) the reflective insulation adequately supported by framing members; and each adjoining sheet of roll membrane being— (A) overlapped not less than 50 mm; or (B) taped together.

ELEMENT	NCC SECTION J REQUIREMENTS
	Bulk Insulation: Must be installed so that— (i) it maintains its position and thickness, other than where it is compressed between cladding and supporting members, water pipes, electrical cabling, or the like; and (ii) in a ceiling, where there is no bulk insulation or reflective insulation in the wall beneath, it overlaps the wall by not less than 50 mm. **The above requirements must be explicitly stated in the architectural documentation/specification.** **Thermal Bridging:** NCC 2022 requires calculating the impact of thermal bridging on the building envelope performance. We have included the impacts of thermal bridging when determining the minimum fabric performance levels outlined in the report.
Roofs	• Minimum added insulation R-Value **R_M 3.2 with reflective foil layer** • External roof material solar absorptance must be **≤ 0.45.** Note that zincalume does not achieve this requirement.
Roof Lights	Not Applicable.
Façade	**External Walls:** • Minimum added insulation R-Value **R_M 2.5** • Steel studs in external walls will require a thermal break strip such as Vulcan DCT between the stud and cladding. • Insulation must extend from the floor up to the roof/slab to create a continuous thermal barrier. **External Glazed Windows and Doors:** • U-Value (U_w) ≤ 3.5 W/m² • SHGC ($SHGC_W$) ≤ 0.39
Floors	Not Applicable.

Notes:

- **R_T** is the total R-Value of the building element, including cladding, internal finishes, air gaps and air films.
- **R_M** is the R-Value of the added insulation material.
- **U_W** is total U-Value of the window element, including glazing and frame.
- **U_{SHGC}** is total SHGC of the window element, including glazing and frame.
- The calculation of the required total R-Value (R_T) and total system U-Value (U_W) has considered thermal bridging as per NCC requirements. Therefore, the required added insulation R-Value (R_M) can be considerably higher than the total construction R-Value (R_T).
- The required concrete wall R_T value allows for the thermal bridge created by the uninsulated slab edge.

BUILDING SEALING

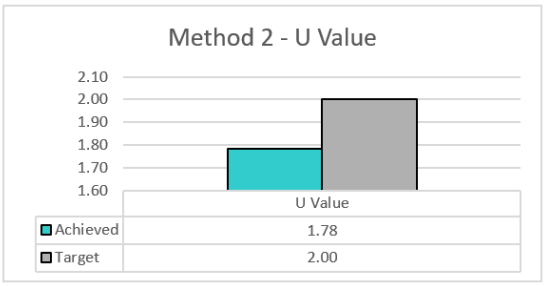
Table 2 provides a summary of the design and construction provisions required to limit air infiltration. These requirements must be included in the documentation.

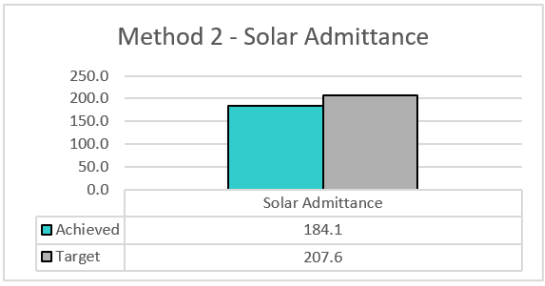
Table 2: Building sealing requirements

ELEMENT	NCC DEEMED-TO-SATISFY REQUIREMENTS
Windows and Doors	• Glazed windows and doors must comply with AS2047. • All external doors must have self-closing mechanisms.
Exhaust Fans	Exhaust fans must be fitted with a self-closing damper.
Ceilings, Walls, and Floors	Must be constructed to minimise air leakage, using internal lining systems that are close fitting or by using sealants, caulking, skirting, architraves, and the like. An airtight membrane within the wall structure is required to create a continual air tight barrier around the building envelope.

GLAZING CALCULATIONS

The preliminary J4D6 are presented below:





CONCLUSION

The results of the preliminary Section J assessment presented above indicate that the development is on track to achieve compliance with DTS requirements.

APPENDIX C – BESS ASSESSMENT

Please refer to the BESS Report attached on the following pages.

BESS Report

Built Environment Sustainability Scorecard

This BESS report outlines the sustainable design commitments of the proposed development at 17 Apsley Ln Strathfieldsaye Victoria 3551. 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 Greater Bendigo City Council.

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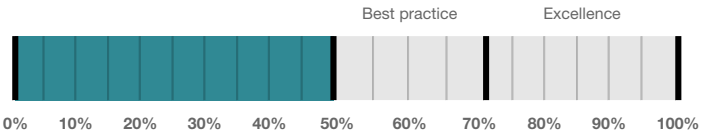
Your BESS Score



53%

Project details

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Project ID	2CF964FA-R2
BESS Version	BESS-9
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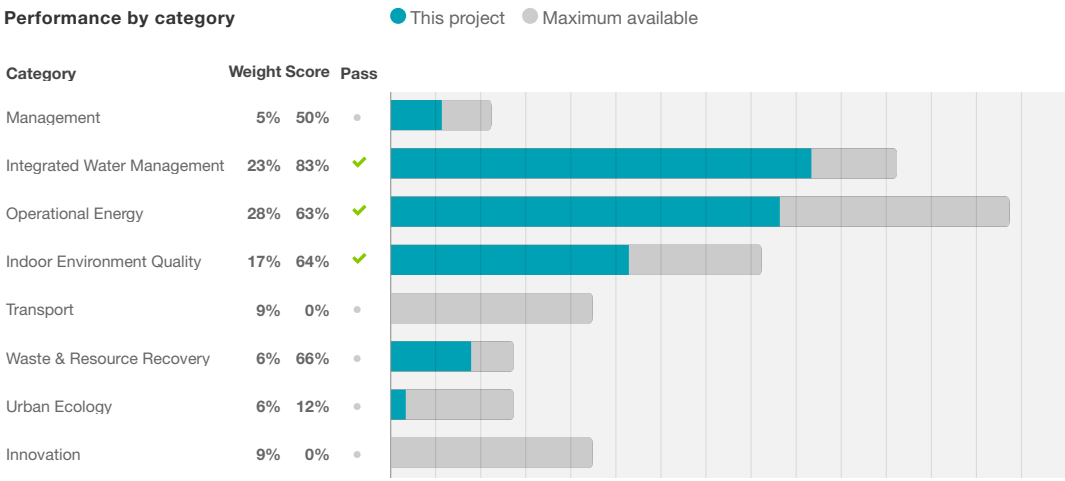
Account	admin@wrapengineering.com.au
Application no.	
Site area	14,642 m²
Building floor area	4,059 m²
Date	13 February 2026
Software version	2.3.0-B.645

Performance by category



Buildings

Name	Height	Footprint	% of total footprint
Building 1	1	4,767 m^2	100%

Dwellings & Non Res Spaces

Non-Res Spaces

Name	Quantity	Area	Building	% of total area
Shop				
WOOLSWORTHS SUPERMARKET	1	3,366 m^2	Building 1	82%
RETAIL spaces	3	231 m^2	Building 1	17%
Total	**4**	**4,059 m^2**	**100%**	

Supporting Evidence

Shown on Floor Plans

Credit	Requirement	Response	Status
Management 3.2	Annotation: Individual utility meters to be provided to all individual commercial tenancies		-
Management 3.3	Annotation: Sub-meters to be provided to all major common area services (list each)		-
Integrated Water Management 2.1	Location of any stormwater management systems (rainwater tanks, raingardens, buffer strips)		-
Operational Energy 4.2	Location and size of solar photovoltaic system		-
Waste & Resource Recovery 2.1	Location of food and garden waste facilities		-
Waste & Resource Recovery 2.2	Location of recycling facilities		-
Urban Ecology 3.2	Location of food production areas		-

Supporting Documentation

Credit	Requirement	Response	Status
Management 2.3a	Section J glazing assessment		-
Integrated Water Management 2.1	STORM report or MUSIC model		-
Operational Energy 1.1	Energy Report showing calculations of reference case and proposed buildings		-
Operational Energy 3.7	Average lighting power density and lighting type(s) to be used		-
Operational Energy 4.2	Specifications of the solar photovoltaic system(s)		-
Indoor Environment Quality 1.4	A short report detailing assumptions used and results achieved.		-

Credit summary

Management Overall contribution 4.5%

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

IWM Overall contribution 22.5%

		83% ✔ Pass
1.1 Potable Water Use		70% ✔ Achieved
2.1 Stormwater Treatment		100% ✔ Achieved
3.1 Water Efficient Landscaping		N/A ✣ Scoped Out
		NA
4.1 Building Systems Water Use		0%

Operational Energy Overall contribution 27.5%

	Minimum required 50%	63% ✔ Pass
1.1 Thermal Performance Rating - Non-Residential		37%
2.1 Greenhouse Gas Emissions		100%
2.2 Peak Demand		100%
2.6 Electrification		0% ⊘ Disabled
		Credit is available when the energy supply is set to all-electric (no gas or wood).
2.7 Energy consumption		100%
3.1 Carpark Ventilation		N/A ✣ Scoped Out
		On-ground car park
3.2 Hot Water - Non-Residential		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		100%
4.4 Renewable Energy Systems - Other		N/A ✣ Scoped Out
		No other (non-solar PV) renewable energy is in use.

IEQ Overall contribution 16.5%

Minimum required 50%	64%	✔ Pass
1.4 Daylight Access - Non-Residential	82%	✔ Achieved
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	100%	

Transport Overall contribution 9.0%

	0%	
1.4 Bicycle Parking - Non-Residential	0%	
1.5 Bicycle Parking - Non-Residential Visitor	0%	
1.6 End of Trip Facilities - Non-Residential	0%	⊘ Disabled
	Credit 1.4 must be complete first.	
2.1 Electric Vehicle Infrastructure	0%	
2.3 Motorbikes / Mopeds	0%	

Waste & Resource Recovery Overall contribution 5.5%

	66%	
1.1 Construction Waste - Building Re-Use	0%	
2.1 Operational Waste - Food & Garden Waste	100%	
2.2 Operational Waste - Convenience of Recycling	100%	

Urban Ecology Overall contribution 5.5%

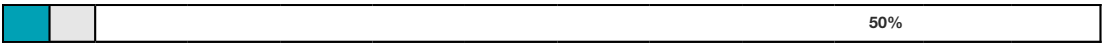
	12%	
1.1 Communal Spaces	0%	
2.1 Vegetation	0%	
2.2 Green Roofs	0%	
2.3 Green Walls and Facades	0%	
3.2 Food Production - Non-Residential	100%	

Innovation Overall contribution 9.0%

	0%	
1.1 Innovation	0%	

Credit breakdown

Management Overall contribution 4.5%



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
2.3 Thermal Performance Modelling - Non-Residential	50%
Score Contribution	This credit contributes 25% towards the category score.
Criteria	Has a preliminary facade assessment been undertaken in accordance with NCC2022 Section J4D6?
Question	Criteria Achieved ?
Shop	Yes
Criteria	Has preliminary modelling been undertaken in accordance with either NCC2022 Section J (Energy Efficiency), NABERS or Green Star?
Question	Criteria Achieved ?
Shop	No
3.2 Metering - Non-Residential	100%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Have utility meters been provided for all individual commercial tenants?
Question	Criteria Achieved ?
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 ?
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

IWM Overall contribution 22.5%

		83%	✔ Pass

Section Notes: Refer to civil report for Stormwater Management Plan

Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No
Stormwater profile	
Which stormwater modelling software are you using?:	MUSIC or other modelling software
STORM score achieved:	-
Flow:	-
Total Suspended Solids:	80 %
Total Phosphorus:	45 %
Total Nitrogen:	45 %
Rainwater tank profile	
What is the total roof area connected to the rainwater tank?:	
Rainwater Tank 1	1,500 m²
	-
Tank Size:	
Rainwater Tank 1	30,000 Litres
	-
Irrigation area connected to tank:	
Rainwater Tank 1	467 m²
	-
Is connected irrigation area a water efficient garden?:	
Rainwater Tank 1	No
	-
Other external water demand connected to tank?:	
Rainwater Tank 1	0.0 Litres/Day
	-
Fixtures, fittings & connections profile	
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	>= 5 Star WELS rating
Washing Machine Water Efficiency: All	>= 5 Star WELS rating
Which non-potable water source is the dwelling/space connected to?: All	Rainwater Tank 1

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: All	No

1.1 Potable Water Use

70% ✔ Achieved

Score Contribution	This credit contributes 33.3% 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	12150 kL
Output	Proposed (excluding rainwater and recycled water use)
Project	7039 kL
Output	Proposed (including rainwater and recycled water use)
Project	6334 kL
Output	% Reduction in Potable Water Consumption
Project	47 %
Output	% of connected demand met by rainwater
Project	55 %
Output	How often does the tank overflow?
Project	Never / Rarely
Output	Opportunity for additional rainwater connection
Project	3773 kL

2.1 Stormwater Treatment

100% ✔ Achieved

Score Contribution	This credit contributes 60% towards the category score.
Criteria	Has best practice stormwater management been demonstrated?
Annotation	Refer to the civil report.
Output	Flow
Project	0 %
Output	Min Suspended Solids reduction
Project	80 %
Output	Total Suspended Solids reduction
Project	80 %
Output	Min Phosphorus reduction
Project	45 %
Output	Total Phosphorus reduction
Project	45 %
Output	Min Nitrogen reduction
Project	45 %
Output	Total Nitrogen reduction
Project	45 %

3.1 Water Efficient Landscaping		N/A	Scoped Out
			NA
This credit was scoped out	NA		

4.1 Building Systems Water Use		0%
Score Contribution	This credit contributes 6.7% 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	No	

Operational Energy Overall contribution 27.5%

		Minimum required 50%	63%	✔ Pass

Project profile	
Use the BESS Deem to Satisfy (DtS) method for Non-residential spaces?:	Yes
Are you installing any renewable energy system(s) (other than solar photovoltaic)?:	No
Energy Supply:	Electricity & Natural Gas
Are you installing a cogeneration or trigeneration system?:	No
Solar Photovoltaic system profile	
System Size (lesser of inverter and panel capacity): Solar Photovoltaic system 1	20.0 kW peak
Orientation (which way is the system facing)?: Solar Photovoltaic system 1	North
Inclination (angle from horizontal): Solar Photovoltaic system 1	15.0 Angle (degrees)
Non-residential Deemed-to-Satisfy profile	
Do all exposed floors and ceilings (forming part of the envelope) demonstrate meeting the required NCC2022 insulation levels (total R-value upwards and downwards)?:	Yes
Does all wall and glazing demonstrate meeting the required NCC2022 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

1.1 Thermal Performance Rating - Non-Residential		37%
Score Contribution	This credit contributes 36.4% towards the category score.	
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC2022 Section J)?	
2.1 Greenhouse Gas Emissions		100%
Score Contribution	This credit contributes 9.1% towards the category score.	
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?	
2.2 Peak Demand		100%
Score Contribution	This credit contributes 4.5% towards the category score.	
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the benchmark?	

2.6 Electrification		0%	Disabled
			Credit is available when the energy supply is set to all-electric (no gas or wood).
This credit is disabled	Credit is available when the energy supply is set to all-electric (no gas or wood).		
2.7 Energy consumption		100%	
Score Contribution	This credit contributes 18.2% towards the category score.		
Criteria	What is the % reduction in annual energy consumption against the benchmark?		
3.1 Carpark Ventilation		N/A	Scoped Out
			On-ground car park
This credit was scoped out	On-ground car park		
3.2 Hot Water - Non-Residential		100%	
Score Contribution	This credit contributes 4.5% towards the category score.		
Criteria	What is the % reduction in annual energy consumption (gas and electricity) of the hot water system against the benchmark?		
3.7 Internal Lighting - Non-Residential		100%	
Score Contribution	This credit contributes 9.1% 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 J7D3a of the NCC 2022 Vol 1?		
Question	Criteria Achieved ?		
Shop	Yes		
4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A	Scoped Out
			No cogeneration or trigeneration system in use.
This credit was scoped out	No cogeneration or trigeneration system in use.		
4.2 Renewable Energy Systems - Solar		100%	
Score Contribution	This credit contributes 4.5% 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		
Shop	24,888 kWh		
Output	% of Building's Energy		
Shop	6 %		
4.4 Renewable Energy Systems - Other		N/A	Scoped Out
			No other (non-solar PV) renewable energy is in use.
This credit was scoped out	No other (non-solar PV) renewable energy is in use.		

IEQ Overall contribution 16.5%

	Minimum required 50%	64%	✔ Pass

1.4 Daylight Access - Non-Residential		82%	✔ Achieved
Score Contribution	This credit contributes 35.3% towards the category score.		
Criteria	What % of the nominated floor area has at least 2% daylight factor?		
Question	Percentage Achieved?		
Shop	82 %		
2.3 Ventilation - Non-Residential		33%	✔ Achieved
Score Contribution	This credit contributes 35.3% towards the category score.		
Criteria	What % of the regular use areas are effectively naturally ventilated?		
Question	Percentage Achieved?		
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	Percentage Achieved?		
Shop	50 %		
Criteria	What CO2 concentrations are the ventilation systems designed to achieve, to monitor and to maintain?		
Question	Value		
Shop	0 ppm		
3.4 Thermal comfort - Shading - Non-Residential		100%	
Score Contribution	This credit contributes 17.6% towards the category score.		
Criteria	What percentage of east, north and west 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 5.9% towards the category score.		
Criteria	What percentage of regular use areas in tenancies have ceiling fans?		
Question	Percentage Achieved?		
Shop	-		
4.1 Air Quality - Non-Residential		100%	
Score Contribution	This credit contributes 5.9% towards the category score.		

Criteria	Do all paints, sealants and adhesives meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Shop	Yes

Criteria	Does all carpet meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Shop	Yes

Criteria	Does all engineered wood meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Shop	Yes

Transport Overall contribution 9.0%

	0%

1.4 Bicycle Parking - Non-Residential	0%
Score Contribution	This credit contributes 28.6% 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 ?
Shop	No
Question	Bicycle Spaces Provided ?
Shop	9

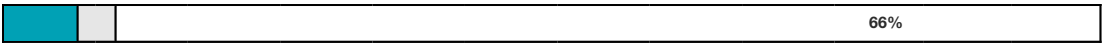
1.5 Bicycle Parking - Non-Residential Visitor	0%
Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	Have the planning scheme requirements for visitor bicycle parking been exceeded by at least 50% (or a minimum of 1 where there is no planning scheme requirement)?
Question	Criteria Achieved ?
Shop	No
Question	Bicycle Spaces Provided ?
Shop	9

1.6 End of Trip Facilities - Non-Residential	0% ⊘ Disabled
	Credit 1.4 must be complete first.
This credit is disabled	Credit 1.4 must be complete first.

2.1 Electric Vehicle Infrastructure	0%
Score Contribution	This credit contributes 28.6% towards the category score.
Criteria	Are facilities provided for the charging of electric vehicles?
Question	Criteria Achieved ?
Project	No

2.3 Motorbikes / Mopeds	0%
Score Contribution	This credit contributes 14.3% 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 & Resource Recovery Overall contribution 5.5%



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	100%
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	Yes

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 5.5%

	12%

1.1 Communal Spaces	0%
Score Contribution	This credit contributes 12.5% 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
Shop	-
Output	Minimum Common Space Required
Shop	238 m²

2.1 Vegetation	0%
Score Contribution	This credit contributes 50% 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	3 %

2.2 Green Roofs	0%
Score Contribution	This credit contributes 12.5% 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 12.5% towards the category score.
Criteria	Does the development incorporate a green wall or green façade?
Question	Criteria Achieved ?
Project	No

3.2 Food Production - Non-Residential	100%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	What area of space per occupant is dedicated to food production?
Question	Food Production Area
Shop	130 m²
Output	Min Food Production Area
Shop	102 m²

Innovation Overall contribution 9.0%

	0%

1.1 Innovation		0%
Score Contribution	This credit contributes 100% towards the category score.	
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?	

Disclaimer

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