BESS Report

This BESS report outlines the sustainable design commitments of the proposed development at 8-20 King 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.

8-20 King St, Oakleigh 3166 Oakleigh

Site area: 13757 m^2 · Building Floor Area: 16222 m^2 ·
Date of Assessment: 12 Mar 2021 ·
Version: V5, 1.6.2-B.293 ·
Applicant: peter@sdconsultants.com.au

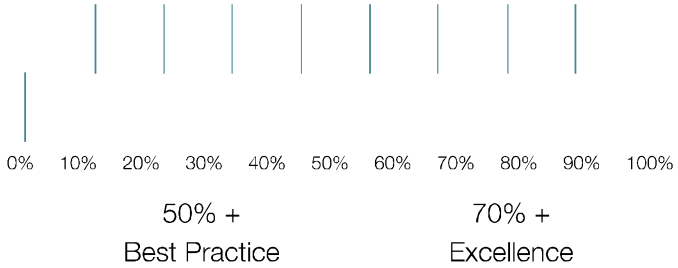
Project Identifier

87AF7AAC

Published
http://bess.net.au/projects/87AF7AAC-V2

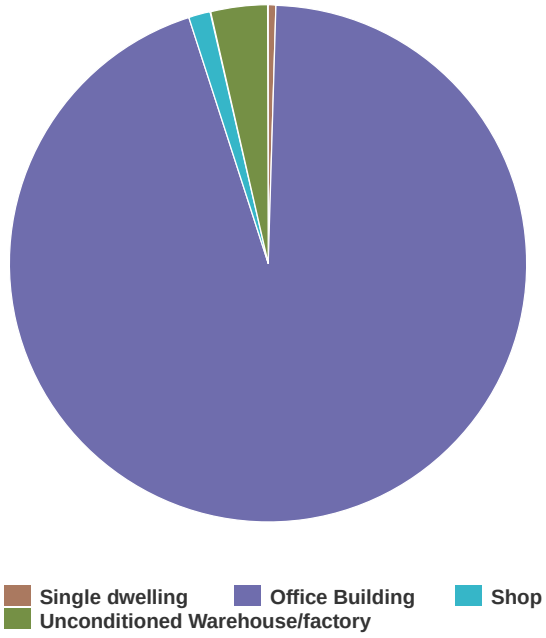
Your BESS score is

+ 50%



% of Total	Category	Score	Pass
3 %	Management	67 %	
6 %	Water	71 %	✓
14 %	Energy	50 %	✓
14 %	Stormwater	100 %	✓
6 %	IEQ	34 %	✗
4 %	Transport	49 %	
2 %	Waste	33 %	
1 %	Urban Ecology	25 %	
1 %	Innovation	10 %	

Building Composition



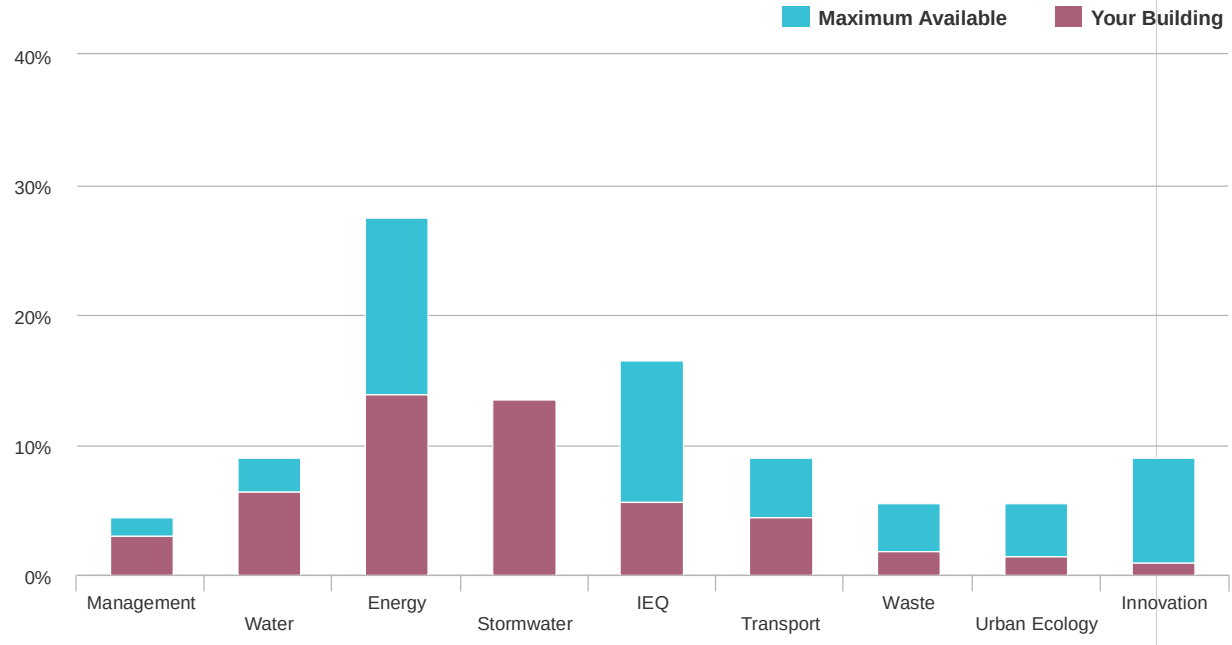
Dwellings

Type	Name	Quantity	Area
Single dwelling	Caretaker's residence	1	80 m^2

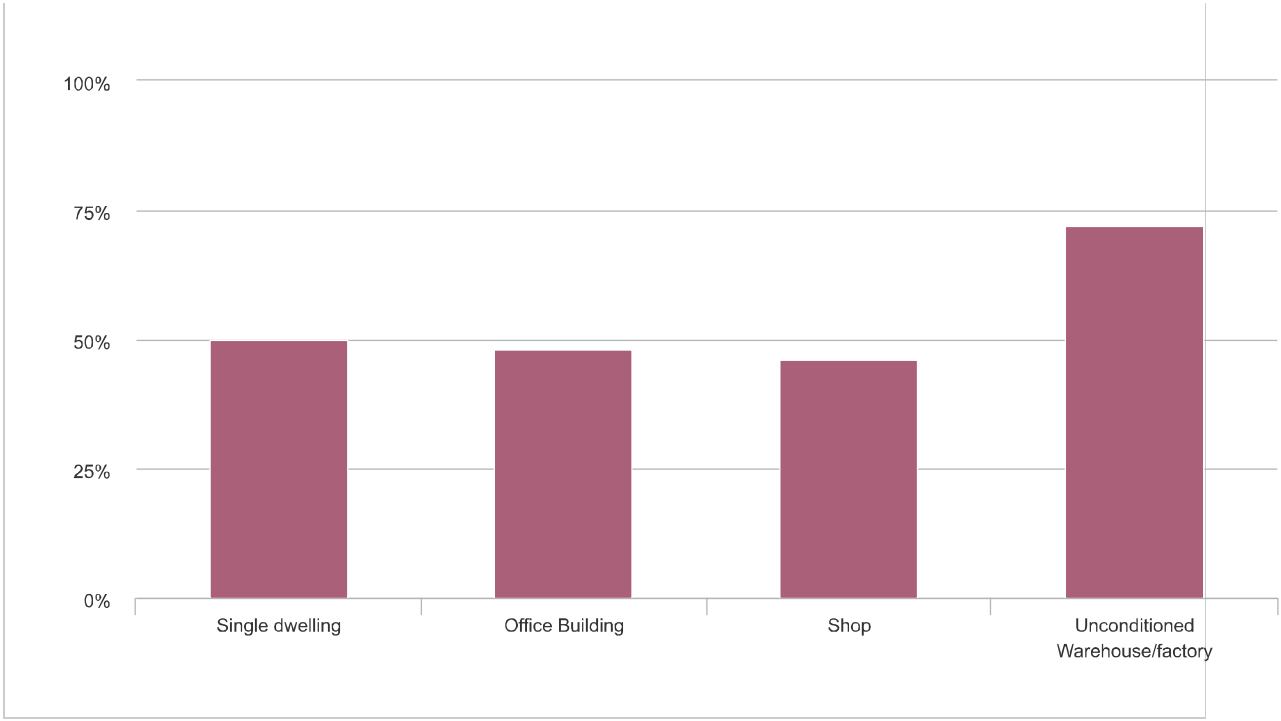
Non-Residential Spaces

Office Building	7,059 m^2
Unconditioned Warehouse/factory	582 m^2
Office Building	7,572 m^2
Shop	36 m^2
Office Building	706 m^2
Shop	187 m^2

How did this Development Perform in each Environmental Category?



How does each Dwelling or Non-Residential Space type perform?



Sustainable design commitments by category

The sustainable design commitments for this project are listed below. These are to be incorporated into the design documentation and subsequently implemented.

Management

67% - contributing 3% to overall score

Credit	Disabled	Scoped out	Score
Management 2.3 Thermal Performance Modelling - Non-Residential			100 %
Management 2.4 Thermal Performance Modelling - Non-Residential			100 %
Management 3.2 Metering			100 %
Management 3.3 Metering			100 %
Management 4.1 Building Users Guide			100 %

Management 2.3 Thermal Performance Modelling - Non-Residential 100%

Score Contribution	This credit contributes 22.1% towards this section's score.
Aim	To encourage and recognise developments that have used modelling to inform passive design at the early design stage

Questions

Has preliminary modelling been undertaken in accordance with either NCC2019 Section J (Energy Efficiency), NABERS or Green Star? *

Office Building	Shop

Yes	Yes

Management 2.4 Thermal Performance Modelling - Non-Residential 100%

Score Contribution	This credit contributes 11.0% towards this section's score.
Aim	To encourage and recognise developments that have used modelling to inform passive design at the early design stage

Questions

Has a preliminary Section J facade assessment been undertaken? *

Office Building	Shop
Yes	Yes

Management 3.2 Metering 100%

Score Contribution	This credit contributes 11.1% towards this section's score.
Aim	To provide building users with information that allows monitoring of energy and water consumption

Questions

Have utility meters been provided for all individual commercial tenants? *

Office Building	Shop	Unconditioned Warehouse/factory
Yes	Yes	Yes

Management 3.3 Metering 100%

Score Contribution	This credit contributes 11.1% towards this section's score.
Aim	To provide building users with information that allows monitoring of energy and water consumption

Questions

Have all major common area services been separately submetered? *

Office Building	Shop	Unconditioned Warehouse/factory
Yes	Yes	Yes

Management 4.1 Building Users Guide 100%

Score Contribution	This credit contributes 11.1% towards this section's score.
Aim	To encourage and recognise initiatives that will help building users to use the building efficiently

Questions

Will a building users guide be produced and issued to occupants? *

Project wide
Yes

Water

71% - contributing 6% to overall score

Credit	Disabled	Scoped out	Score
Water 1.1 Potable water use reduction			60 %
Water 3.1 Water Efficient Landscaping			100 %
Water 4.1 Building Systems Water Use Reduction			100 %

Water Approachs

What approach do you want to use Water?	Use the built in calculation tools
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

	Caretaker's residence	Buildings A-F Commercial Tenancies	Buildings E&F Warehouses
Showerhead	3 Star WELS (>= 6.0 but <= 7.5)	3 Star WELS (>= 6.0 but <= 7.5)	3 Star WELS (>= 6.0 but <= 7.5)
Bath	Scope out	Scope out	Scope out
Kitchen Taps	>= 5 Star WELS rating	>= 5 Star WELS rating	>= 5 Star WELS rating
Bathroom Taps	>= 5 Star WELS rating	>= 5 Star WELS rating	>= 5 Star WELS rating
Dishwashers	>= 4 Star WELS rating	>= 4 Star WELS rating	>= 4 Star WELS rating
WC	>= 4 Star WELS rating	>= 4 Star WELS rating	>= 4 Star WELS rating
Urinals	Scope out	>= 6 Star WELS rating	>= 6 Star WELS rating
Washing Machine Water Efficiency	Default or unrated	Scope out	Scope out
Which non-potable water source is the dwelling/space connected to?	75kL + 35kL + 40kL tanks	75kL + 35kL + 40kL tanks	75kL + 35kL + 40kL tanks

	Caretaker's residence	Buildings A-F Commercial Tenancies	Buildings E&F Warehouses
Non-potable water source connected to Toilets	Yes	Yes	Yes
Non-potable water source connected to Laundry (washing machine)	No	No	No
Non-potable water source connected to Hot Water System	No	No	No

	Buildings G&I Offices	Building H Cafe	Building J Office
Showerhead	3 Star WELS (>= 6.0 but <= 7.5)	3 Star WELS (>= 6.0 but <= 7.5)	3 Star WELS (>= 6.0 but <= 7.5)
Bath	Scope out	Scope out	Scope out
Kitchen Taps	>= 5 Star WELS rating	>= 5 Star WELS rating	>= 5 Star WELS rating
Bathroom Taps	>= 5 Star WELS rating	>= 5 Star WELS rating	>= 5 Star WELS rating
Dishwashers	>= 4 Star WELS rating	>= 4 Star WELS rating	>= 4 Star WELS rating
WC	>= 4 Star WELS rating	>= 4 Star WELS rating	>= 4 Star WELS rating
Urinals	>= 6 Star WELS rating	>= 6 Star WELS rating	>= 6 Star WELS rating
Washing Machine Water Efficiency	Scope out	Scope out	Scope out
Which non-potable water source is the dwelling/space connected to?	75kL + 35kL + 40kL tanks	75kL + 35kL + 40kL tanks	75kL + 35kL + 40kL tanks
Non-potable water source connected to Toilets	Yes	Yes	Yes
Non-potable water source connected to Laundry (washing machine)	No	No	No
Non-potable water source connected to Hot Water System	No	No	No

	Building J Cafe
Showerhead	3 Star WELS (>= 6.0 but <= 7.5)
Bath	Scope out
Kitchen Taps	>= 5 Star WELS rating
Bathroom Taps	>= 5 Star WELS rating
Dishwashers	>= 4 Star WELS rating
WC	>= 4 Star WELS rating
Urinals	>= 6 Star WELS rating
Washing Machine Water Efficiency	Scope out
Which non-potable water source is the dwelling/space connected to?	75kL + 35kL + 40kL tanks
Non-potable water source connected to Toilets	Yes

	Building J Cafe
Non-potable water source connected to Laundry (washing machine)	No
Non-potable water source connected to Hot Water System	No

Rainwater Tanks

	75kL + 35kL + 40kL tanks
Name	75kL + 35kL + 40kL tanks
What is the total roof area connected to the rainwater tank? Square Metres	4619.3
Tank Size Litres	150000.0
Irrigation area connected to tank Square Metres	1458.0
Is connected irrigation area a water efficient garden?	Yes

Water 1.1 Potable water use reduction 60%

Score Contribution	This credit contributes 71.4% towards this section's score.
Aim	Water 1.1 Potable water use reduction (interior uses) What is the reduction in total water use due to efficient fixtures, appliances, and rainwater use? To achieve points in this credit there must be >25% potable water reduction. You are using the built in calculation tools. This credit is calculated from information you have entered above.
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.

Calculations

Reference (kL) *

Project wide
27111

Proposed (excluding rainwater and recycled water use) (kL) *

Project wide
19580

Rainwater or recycled water supplied (Internal + External) (kL) *

Project wide
3575

Proposed (including rainwater and recycled water use) (kL) *

Project wide
16004

% Reduction in Potable Water Consumption * Percentage %

Project wide
40 %

Water 3.1 Water Efficient Landscaping 100%

Score Contribution	This credit contributes 14.3% towards this section's score.
Aim	Are water efficiency principles used for landscaped areas? This includes low water use plant selection (e.g. xeriscaping). Note: food producing landscape areas and irrigation areas connected to rainwater or an alternative water source are excluded from this section.

Questions

Will water efficient landscaping be installed? *

Project wide
Yes

Water 4.1 Building Systems Water Use Reduction 100%

Score Contribution	This credit contributes 14.3% towards this section's score.
Aim	Will the project minimise water use for building systems such as evaporative cooling and fire testing systems?

Questions

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? *

Project wide
Yes

Energy 50% - contributing 14% to overall score

Credit	Disabled	Scoped out	Score
Energy 1.1 Thermal Performance Rating - Non-Residential			12 %
Energy 1.2 Thermal Performance Rating - Residential			17 %
Energy 2.1 Greenhouse Gas Emissions			100 %
Energy 2.3 Electricity Consumption			100 %
Energy 2.4 Gas Consumption			N/A
Energy 2.5 Wood Consumption			N/A

Energy 3.1 Carpark Ventilation	N/A
Energy 3.2 Hot Water	100 %
Energy 3.3 External Lighting	100 %
Energy 3.4 Clothes Drying	100 %
Energy 3.5 Internal Lighting - Residential Single Dwelling	100 %
Energy 3.7 Internal Lighting - Non-Residential	100 %
Energy 4.1 Combined Heat and Power (cogeneration / trigeneration)	N/A
Energy 4.2 Renewable Energy Systems - Solar	100 %

Use the BESS Deem to Satisfy (DtS) method for Energy?	No
Use the BESS Deem to Satisfy (DtS) method for Energy Unconditioned Spaces?	Yes
Are water heating systems within one Star available, or 85% or better than the most efficient equivalent capacity unit?	Yes

Dwellings Energy Approachs

What approach do you want to use for Energy?	Use the built in calculation tools
Are you installing a solar photovoltaic (PV) system?	Yes
Are you installing any other renewable energy system(s)?	No
Gas supplied into building	No gas connection

Dwelling Energy Profiles

	Caretaker's residence
Below the floor is	Another Occupancy
Above the ceiling is	Outside
Exposed sides	2
NatHERS Annual Energy Loads - Heat MJ/sqm	100.0
NatHERS Annual Energy Loads - Cool MJ/sqm	25.0
NatHERS star rating	6.5
Type of Heating System	D Reverse cycle space
Heating System Efficiency	std/MEPS
Type of Cooling System	Refrigerative space
Cooling System Efficiency	Current Default / MEPS
Type of Hot Water System	B Electric Instantaneous
Is the hot water system shared by multiple dwellings?	No
% Contribution from solar hot water system	0 %
Clothes Line	A No drying facilities
Clothes Dryer	G Clothes dryer 2 stars

Non-Residential Spaces Energy Profiles

	Buildings A-F Commercial Tenancies	Buildings G&I Offices	Building H Cafe
Heating, Cooling & Comfort Ventilation - Electricity Reference fabric & services kWh	112117.6	120265.6	571.8
Heating, Cooling & Comfort Ventilation - Electricity Proposed fabric & reference services kWh	105105.4	112743.7	536.0
Heating, Cooling & Comfort Ventilation - Electricity Proposed fabric & services kWh	105105.4	112743.7	536.0
Hot Water - Electricity Reference kWh	15861.1	21688.9	100.0
Hot Water - Electricity Proposed kWh	15861.1	21688.9	100.0
Lighting - Reference kWh	169534.4	181855.0	864.6
Lighting - Proposed kWh	169534.4	181855.0	864.6
Peak Thermal Cooling Load Reference fabric and services kW	0.0	0.0	0.0
Peak Thermal Cooling Load Proposed fabric and services kW	0.0	0.0	0.0

	Building J Office	Building J Cafe
Heating, Cooling & Comfort Ventilation - Electricity Reference fabric & services kWh	11213.4	2970.1
Heating, Cooling & Comfort Ventilation - Electricity Proposed fabric & reference services kWh	10512.0	2784.3
Heating, Cooling & Comfort Ventilation - Electricity Proposed fabric & services kWh	10512.0	2784.3
Hot Water - Electricity Reference kWh	1919.4	519.4
Hot Water - Electricity Proposed kWh	1919.4	519.4
Lighting - Reference kWh	16955.8	4491.1
Lighting - Proposed kWh	16955.8	4491.1
Peak Thermal Cooling Load Reference fabric and services kW	0.0	0.0
Peak Thermal Cooling Load Proposed fabric and services kW	0.0	0.0

Solar Photovoltaic systems

	Solar PV Offices	Solar PV Cafes	Solar PV Warehouses
Name	Solar PV Offices	Solar PV Cafes	Solar PV Warehouses
System Size (lesser of inverter and panel capacity) kW peak	135.4	2.0	44.4

	Solar PV Offices	Solar PV Cafes	Solar PV Warehouses
Orientation (which way is the system facing)?	North	North	North
Inclination (angle from horizontal) (degrees) Angle	5.0	5.0	5.0
Which Building Class does this apply to?	Office Building	Shop	Unconditioned Warehouse/factory

Energy 1.1 Thermal Performance Rating - Non-Residential 12%

Score Contribution	This credit contributes 44.2% towards this section's score.
Aim	Reduce reliance on mechanical systems to achieve thermal comfort in summer and winter - improving comfort, reducing greenhouse gas emissions, energy consumption, and maintenance costs.
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC 2019 Section J)?

Calculations

Total Improvement * Percentage %

Office Building	Shop
6 %	6 %

Energy 1.2 Thermal Performance Rating - Residential 17%

Score Contribution	This credit contributes 0.2% towards this section's score.
Aim	Reduce reliance on mechanical systems to achieve thermal comfort in summer and winter - improving comfort, reducing greenhouse gas emissions, energy consumption, and maintenance costs.
Criteria	What is the average NatHERS rating?

Calculations

Average NATHERS Rating (Weighted) * Stars

Single dwelling
6.5

Energy 2.1 Greenhouse Gas Emissions 100%

Score Contribution	This credit contributes 11.1% towards this section's score.
Aim	Reduce the building's greenhouse gas emissions

Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?

Calculations

Reference Building with Reference Services (BCA only) * kg CO2

Single dwelling	Office Building	Shop
6574.3	130538.3	685.2

Proposed Building with Proposed Services (Actual Building) * kg CO2

Single dwelling	Office Building	Shop
3286.1	123385.8	648.7

% Reduction in GHG Emissions * Percentage %

Single dwelling	Office Building	Shop
50 %	5 %	5 %

Energy 2.3 Electricity Consumption 100%

Score Contribution	This credit contributes 11.1% towards this section's score.
Aim	Reduce consumption of electricity
Criteria	What is the % reduction in annual electricity consumption against the benchmark?

Calculations

Reference * kWh

Single dwelling	Office Building	Shop
6445.4	127978.7	671.8

Proposed * kWh

Single dwelling	Office Building	Shop
3221.7	120966.5	636.0

Improvement * Percentage %

Single dwelling	Office Building	Shop
50 %	5 %	5 %

Energy 2.4 Gas Consumption N/A

This credit was scoped out: No gas connection in use

This credit was disabled: No gas connection in use

Aim	Reduce consumption of gas

Criteria	What is the % reduction in annual gas consumption against the benchmark?

Energy 2.5 Wood Consumption N/A

This credit was scoped out: No wood heating system present

Aim	Reduce consumption of wood
Criteria	What is the % reduction in annual wood consumption against the benchmark?

Energy 3.1 Carpark Ventilation N/A

This credit was scoped out: Over 40 spaces.

Energy 3.2 Hot Water 100%

Score Contribution	This credit contributes 5.6% towards this section's score.
Criteria	What is the % reduction in annual hot water system energy use (gas and electricity) against the benchmark?

Calculations

Reference * kWh

Single dwelling	Office Building	Shop
2804.7	15861.1	100.0

Proposed * kWh

Single dwelling	Office Building	Shop
1549.3	15861.1	100.0

Improvement * Percentage %

Single dwelling	Office Building	Shop
44 %	0 %	0 %

Energy 3.3 External Lighting 100%

Score Contribution	This credit contributes 0.0% towards this section's score.

Questions

Is the external lighting controlled by a motion detector? *

Single dwelling
Yes

Energy 3.4 Clothes Drying 100%

Score Contribution	This credit contributes 0.0% towards this section's score.
Criteria	Does the combination of clothes lines and efficient dryers reduce energy (gas+electricity) consumption by more than 10%?

Calculations

Reference * kWh

Single dwelling
491.8

Proposed * kWh

Single dwelling
416.8

Improvement * Percentage %

Single dwelling
15 %

Energy 3.5 Internal Lighting - Residential Single Dwelling 100%

Score Contribution	This credit contributes 0.0% towards this section's score.
Aim	Reduce energy consumption associated with internal lighting

Questions

Does the development achieve a maximum illumination power density of 4W/sqm or less? *

Single dwelling
Yes

Energy 3.7 Internal Lighting - Non-Residential 100%

Score Contribution	This credit contributes 11.1% towards this section's score.
Aim	Reduce energy consumption associated with internal lighting

Questions

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? *

Office Building	Shop	Unconditioned Warehouse/factory
Yes	Yes	Yes

Energy 4.1 Combined Heat and Power (cogeneration / trigeneration) N/A

This credit was scoped out: No cogeneration or trigeneration system in use.

This credit was disabled: No cogeneration or trigeneration system in use.

Aim	Reduce energy consumption
Criteria	Does the CHP system reduce the class of buildings GHG emissions by more than 25%?

Energy 4.2 Renewable Energy Systems - Solar 100%

Score Contribution	This credit contributes 5.5% towards this section's score.
Aim	To encourage the installation of on-site renewable energy generation
Criteria	Does the solar power system provide 5% of the estimated energy consumption of the building class it supplies?

Calculations

Solar Power - Energy Generation per year * kWh

Office Building	Shop	Unconditioned Warehouse/factory
157907.5	2332.5	51780.6

% of Building's Energy * Percentage %

Office Building	Shop	Unconditioned Warehouse/factory
32 %	38 %	1779 %

Stormwater 100% - contributing 14% to overall score

Credit	Disabled	Scoped out	Score
Stormwater 1.1 Stormwater Treatment			100 %

Which stormwater modelling are you using?	MUSIC or other modelling software

Stormwater 1.1 Stormwater Treatment 100%

Score Contribution	This credit contributes 100.0% towards this section's score.
Aim	To achieve best practice stormwater quality objectives through reduction of pollutant load (suspended solids, nitrogen and phosphorus)
Criteria	Has best practice stormwater management been demonstrated?

Questions

Flow (ML/year) * % Reduction

Project wide
23.8

Total Suspended Solids (kg/year) * % Reduction

Project wide
81.0

Total Phosphorus (kg/year) * % Reduction

Project wide
60.4

Total Nitrogen (kg/year) * % Reduction

Project wide
54.8

IEQ

34% - contributing 6% to overall score

Credit	Disabled	Scoped out	Score
IEQ 1.4 Daylight Access - Non-Residential			33 %
IEQ 2.2 Cross Flow Ventilation			100 %
IEQ 3.1 Thermal comfort - Double Glazing			100 %
IEQ 3.2 Thermal Comfort - External Shading			100 %
IEQ 3.3 Thermal Comfort - Orientation			100 %

IEQ 1.4 Daylight Access - Non-Residential

33%

Score Contribution	This credit contributes 99.2% towards this section's score.
Aim	To provide a high level of amenity and energy efficiency through design for natural light.
Criteria	What % of the nominated floor area has at least 2% daylight factor?

Questions

% Achieved ? *

Office Building	Shop	Unconditioned Warehouse/factory
49 %	38 %	30 %

IEQ 2.2 Cross Flow Ventilation 100%

Score Contribution	This credit contributes 0.2% towards this section's score.
Aim	To provide fresh air and passive cooling opportunities.

Questions

Are all habitable rooms designed to achieve natural cross flow ventilation? *

Single dwelling
Yes

IEQ 3.1 Thermal comfort - Double Glazing 100%

Score Contribution	This credit contributes 0.3% towards this section's score.
Aim	To provide comfortable indoor spaces and reduce energy needed for heating and cooling

Questions

Is double glazing (or better) used to all habitable areas? *

Single dwelling
Yes

IEQ 3.2 Thermal Comfort - External Shading 100%

Score Contribution	This credit contributes 0.2% towards this section's score.
Aim	To provide comfortable indoor spaces and reduce energy needed for heating and cooling
Notes	External retractable blind or screening to the north; adjacent office to the east and west.

Questions

Is appropriate external shading provided to east, west and north facing glazing? *

Single dwelling
Yes

IEQ 3.3 Thermal Comfort - Orientation 100%

Score Contribution	This credit contributes 0.2% towards this section's score.
Aim	To provide comfortable indoor spaces and reduce energy needed for heating and cooling

Questions

Are at least 50% of living areas orientated to the north? *

Single dwelling
Yes

Transport 49% - contributing 4% to overall score

Credit	Disabled	Scoped out	Score
Transport 1.4 Bicycle Parking - Non-Residential			100 %
Transport 1.5 Bicycle Parking - Non-Residential Visitor			100 %
Transport 1.6 End of Trip Facilities - Non-Residential			95 %

Transport 1.4 Bicycle Parking - Non-Residential 100%

Score Contribution	This credit contributes 25.0% towards this section's score.
Aim	To encourage and recognise initiatives that facilitate cycling
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)?
Notes	Spaces marked on plans: 84 spaces in basement, 3 Building J staff spaces, 1 Building B Staff space. For points in this credit, minimum 77 spaces required for office, minimum 2 spaces required for Shop and minimum 2 spaces required for Warehouse. A total of 88 staff spaces have been provided, exceeding the minimum requirement. As such, full points have been claimed.

Questions

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)? *

Office Building	Shop	Unconditioned Warehouse/factory
Yes	Yes	Yes

Bicycle Spaces Provided ? *

Office Building	Shop	Unconditioned Warehouse/factory
84	2	2

Transport 1.5 Bicycle Parking - Non-Residential Visitor 100%

Score Contribution	This credit contributes 12.5% towards this section's score.
Aim	To encourage and recognise initiatives that facilitate cycling
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)?
Notes	Spaces marked on plans: 16 visitor spaces at Building G entry along Edward Street, 10 visitor spaces between buildings I and F, 4 Building J cafe visitor spaces, 3 Building B Staff spaces. For points in this credit, minimum 23 spaces required for office, minimum 1 space required for Shop and minimum 1 spaces required for Warehouse. A total of 33 staff spaces have been provided, exceeding the minimum requirement. As such, full points have been claimed.

Questions

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)? *

Office Building	Shop	Unconditioned Warehouse/factory
Yes	Yes	Yes

Bicycle Spaces Provided ? *

Office Building	Shop	Unconditioned Warehouse/factory
28	4	1

Transport 1.6 End of Trip Facilities - Non-Residential 95%

Score Contribution	This credit contributes 12.5% towards this section's score.
Aim	To encourage and recognise initiatives that facilitate cycling
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?

Questions

Number of showers provided ? *

Office Building	Shop
6	-

Number of lockers provided ? *

Office Building	Shop
84	-

Calculations

Min Showers Required *

Office Building	Shop	Unconditioned Warehouse/factory
1	1	1

Min Lockers Required *

Office Building	Shop	Unconditioned Warehouse/factory
84	2	2

Waste

33% - contributing 2% to overall score

Credit	Disabled	Scoped out	Score
Waste 2.2 - Operational Waste - Convenience of Recycling			100 %

Waste 2.2 - Operational Waste - Convenience of Recycling

100%

Score Contribution	This credit contributes 33.3% towards this section's score.
Aim	To minimise recyclable material going to landfill

Questions

Are the recycling facilities at least as convenient for occupants as facilities for general waste? *

Project wide
Yes

Urban Ecology

25% - contributing 1% to overall score

Credit	Disabled	Scoped out	Score
Urban Ecology 1.1 Communal Spaces			100 %
Urban Ecology 2.1 Vegetation			25 %

Urban Ecology 1.1 Communal Spaces 100%

Score Contribution	This credit contributes 12.5% towards this section's score.
Aim	To encourage and recognise initiatives that facilitate interaction between building occupants
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?
Notes	Over 500sqm communal space between Buildings C-F, and between Buildings G-I.

Questions

Common space provided * Square Metres

Office Building	Shop	Unconditioned Warehouse/factory
444.0	22.0	11.0

Calculations

Minimum Common Space Required * Square Metres

Office Building	Shop	Unconditioned Warehouse/factory
444	22	11

Urban Ecology 2.1 Vegetation 25%

Score Contribution	This credit contributes 50.0% towards this section's score.
Aim	To encourage and recognise the use of vegetation and landscaping within and around developments
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?
Notes	1/13757 = 9.4%

Questions

Percentage Achieved ? * Percentage %

Project wide
9 %

Innovation 10% - contributing 1% to overall score

Credit	Disabled	Scoped out	Score
Innovation 1.1 Innovation			10 %

Innovations

	Solar PV
Name	Solar PV
Description	A significant solar PV system is included within the development which is predicted by the BESS in-built calculator to generate in excess of 30% of the base-building energy demand.
Points Targeted	1

Innovation 1.1 Innovation 10%

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

Items to be marked on floorplans

9 / 17 floorplans & elevation notes complete.

Management 3.2: Individual utility meters annotated	Incomplete
Management 3.3: Common area submeters annotated	Incomplete
Water 3.1: Water efficient garden annotated	Incomplete
Energy 3.3: External lighting sensors annotated	Incomplete
Energy 3.4: Clothes line annotated (if proposed)	Incomplete
Energy 4.2: Floor plans showing location of photovoltaic panels as described. Floorplans & elevations - Refer Architectural documentation.	To be printed
Stormwater 1.1: Location of any stormwater management systems used in STORM or MUSIC modelling (e.g. Rainwater tanks, raingarden, buffer strips) Floorplans & elevations - Refer Architectural documentation.	To be printed
IEQ 2.2: Dwellings meeting the requirements for having 'natural cross flow ventilation' Floorplans & elevations - The one dwelling in the development meets the requirement.	To be printed
IEQ 3.1: Glazing specification to be annotated	Incomplete
IEQ 3.2: Adjustable shading systems	Incomplete

IEQ 3.3: North-facing living areas Floorplans & elevations - The one dwelling in the development meets the requirement.	To be printed
Transport 1.4: All nominated non-residential bicycle parking spaces Floorplans & elevations - Refer Architectural documentation.	To be printed
Transport 1.5: All nominated non-residential visitor bicycle parking spaces Floorplans & elevations - Refer Architectural documentation.	To be printed
Transport 1.6: Showers, change rooms and lockers as nominated Floorplans & elevations - Refer Architectural documentation.	To be printed
Waste 2.2: Location of recycling facilities	Incomplete
Urban Ecology 1.1: Size and location of communal spaces Floorplans & elevations - Refer Architectural documentation.	To be printed
Urban Ecology 2.1: Vegetated areas Floorplans & elevations - Refer Architectural documentation.	To be printed

Documents and evidence

5 / 12 supporting evidence documentation complete.

Management 2.3: Preliminary modelling report	Incomplete
Management 2.4: Section J glazing assessment	Incomplete
Energy 1.1: Energy Report showing calculations of reference case and proposed buildings Preliminary JV3 Modelling Report - Refer SMP Appendix 4	To be printed
Energy 3.5: 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.	Incomplete
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.	Incomplete
Energy 4.2: Specifications of the solar photovoltaic system(s).	Incomplete
Stormwater 1.1: STORM report or MUSIC model MUSIC Assessment - Refer SMP Appendix 2.	To be printed
IEQ 1.4: A short report detailing assumptions used and results achieved. Daylight Assessment - Refer SMP Appendix 5.	To be printed
IEQ 2.2: A list of dwellings with natural cross flow ventilation N/A - The one dwelling complies.	To be printed
IEQ 3.1: Reference to floor plans or energy modelling showing the glazing specification (U-value and Solar Heat Gain Coefficient, SHGC)	Incomplete

IEQ 3.2: Reference to floor plans and elevations showing shading devices	Incomplete
IEQ 3.3: Reference to the floor plans showing living areas orientated to the north. Floor Plan - Refer Floor Plan.	To be printed