CUNDALL

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Ecologically Sustainable Design (ESD) Report

1012212 – The Ribbon Hotel, Serviced Apartments and Retail

Prepared for:

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The success and realisation of the **proposed** initiatives will be dependent upon the commitment of the design team, the development of the initiatives through the life of the design and also the implementation into the operation of the building. **Without this undertaking the proposed targets may not be achieved**.

It should be noted that the achievement of NABERS Ratings is dependent on how the building user actually operates the building and its systems.

Contents

Executive Summary

This report outlines the key Ecologically Sustainable Design (ESD) initiatives for the proposed hotel, serviced apartments and retail development at 31 Wheat Road, Darling Harbour, NSW.

The project has committed to a similar level of sustainability commitment as the previously approved Development Application, however the actual targets are necessarily different due to the change in use. The Ribbon Hotel, Serviced Apartments and Retail project is **targeting** the following certified environmental rating:

- 5-Star Green Star – Design and As-Built v1 rating for the entire development;

Whilst it will be difficult to obtain high operational energy and water ratings due to the nature of the building's function, it has been proposed that the project will target the following aspirational ratings, dependent on the building user in operation:

- 4.0-4.5-Star NABERS Energy rating for the hotel;
- 3.0-3.5-Star NABERS Water rating for the hotel.

The above-mentioned ratings incorporate a range of environmental impact categories including management, energy, water, transport, materials, emissions, ecology and indoor environmental quality, in addition to assessing the innovation credentials of the project.

Specific sustainability initiatives implemented include:

- Selection of non-toxic finishes to ensure an optimum Indoor Environmental Quality (IEQ) is achieved;
- Efficient fittings, fixtures and appliances will minimise water consumption;
- Rainwater harvesting and storage for reuse in non-potable uses such as landscape irrigation;
- Efficient building fabric and services will achieve operational energy savings;
- Active transport facilities will encourage healthier living while reducing carbon emissions from other transport modes;
- Construction waste recycling targets;
- Enhanced commissioning and tuning practices to ensure performance in operation.

Throughout the project, appropriate documentation will be collected to demonstrate that the chosen sustainability initiatives are incorporated into the design and delivery of the building.

1 Introduction

1.1 General

This report provides details on the Environmentally Sustainable Design (ESD) strategy adopted for the proposed mixed-use development at 31 Wheat Road, Sydney, 'The Ribbon Hotel, Serviced Apartments and Retail'. The project has committed to a similar level of sustainability commitment as the previously approved Development Application, however the actual targets are necessarily different due to the change in use. The Ribbon Hotel, Serviced Apartments and Retail project is **targeting** the following certified environmental ratings:

- 5-Star Green Star – Design and As-Built v1 rating for the entire development;

Whilst it will be difficult to obtain high operational energy and water ratings due to the nature of the building's function, it has been proposed that the project will target the following aspirational ratings, dependent on the building user in operation:

- 4.0-4.5-Star NABERS Energy rating for the hotel;
- 3.0-3.5-Star NABERS Water rating for the hotel.

Section 2 addresses the Green Star Environmental Impact categories, including:

- Management;
- Indoor Environmental Quality;
- Energy;
- Transport;
- Water;
- Land Use & Ecology;
- Emissions;
- Innovation.

Appendix A show a summary of the indicative points currently targeted for the Green Star rating. Points targeted may change during subsequent project stages as the design develops.

In addition, the project is required to comply with the National Construction Code (Formerly Building Code of Australia (BCA)) Section J for Energy Efficiency, which governs minimum performance of building façade and services.

1.2 Comparison to commitments in previous DA approved scheme

The ESD strategy for this project has been developed to be generally in accordance with previously approved commitments for the commercial office scheme.

Since that time, the Green Star rating benchmarks have been increased with the release of a new rating tool, Green Star Design & As-Built v1. The Ribbon Hotel, Serviced Apartments and Retail project has chosen to adopt the new rating tool.

The new proposed use as hotel, serviced apartments and retail necessarily has a higher energy and water requirement due to its function. The proposal now includes heated swimming pools, commercial kitchens and a high volume of shower hot water demand.

Given the factors above, we believe that the new commitments are equivalent to previously approved commitments for the commercial office scheme.

1.3 Benchmarking against other hotels

A review has been undertaken of hotel environmental commitments and performance in order to benchmark the proposed project against other hotel developments.

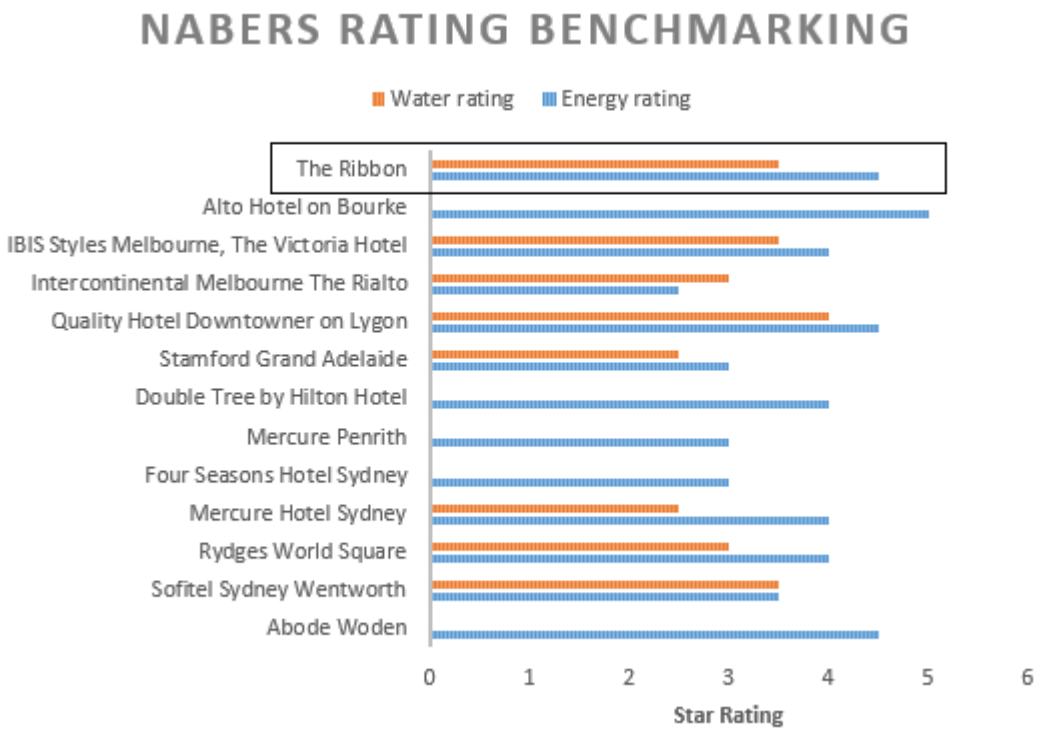
There are currently no known Green Star certified hotels in the world. The Green Building Council of Australia lists one project as 'registered' for a Green Star rating however the project has not been certified and its level of rating is not disclosed.

There are currently twelve NABERS Energy rated hotels in the world (NABERS is an Australian rating tool), some of which also have NABERS Water ratings. The highest of these (not counting purchase of Green Power which is not permitted to be included in NABERS commitment agreements) are a 5-Star energy and a 4 Star water rating. In the 5-Star hotel bracket, the highest energy rating achieved is 3.5 Stars.

The current NABERS ratings(without Green Power) at the time of writing are summarised in the following table and the graph overleaf:

Rated premises	State	NABERS Energy rating	NABERS Water rating
Abode Woden	ACT	4.5 Star Energy	n/a
Sofitel Sydney Wentworth	NSW	3.5 Star Energy	3.5 Star Water
Rydges World Square	NSW	4 Star Energy	3 Star Water
Mercure Hotel Sydney	NSW	4 Star Energy	2.5 Star Water
Four Seasons Hotel Sydney	NSW	3 Star Energy	n/a
Mercure Penrith	NSW	3 Star Energy	n/a
Double Tree by Hilton Hotel	NT	4 Star Energy	n/a
Stamford Grand Adelaide	SA	3 Star Energy	2.5 Star Water
Quality Hotel Downtowner on Lygon	VIC	4.5 Star Energy	4-Star Water
Intercontinental Melbourne The Rialto	VIC	2.5 Star Energy	3 Star Water
IBIS Styles Melbourne, The Victoria Hotel	VIC	4 Star Energy	3.5 Star Water
Alto Hotel on Bourke	VIC	5 Star Energy	n/a

The following graph shows the proposed aspirational NABERS Ratings compared to the other NABERS Rated Hotels in Australia.



2 Environmentally Sustainable Design (ESD) Initiatives

2.1 Management

Good environmental management practices are being adopted by the development, including enhanced commissioning with independent review and reporting, ongoing tuning processes, building user information and environmental performance targets. Best practice construction environmental management processes will be implemented, as well as waste diversion targets from landfill. Metering and monitoring strategies will ensure operational performance can be tracked and optimised.

These strategies are outlined in further detail, below:

2.1.1 Green Star Accredited Professional

A Green Star Accredited Professional will be appointed to provide sustainability advice from schematic design through to practical completion of the project.

2.1.2 Commissioning and Tuning

The project team and all relevant contractors will undertake commissioning process activities for all nominated building systems that serve the project, including the following:

- Environmental performance targets will be set and documented;
- A comprehensive services and maintainability review will be conducted to address commissionability, controllability, maintainability, operability and safety;
- Best practice commissioning will be undertaken in accordance with CIBSE or ASHRAE standards;
- Tuning will be completed for all building systems, and at a minimum, quarterly adjustments and measurement must be undertaken for the first 12 months after occupation.
- A qualified Independent Commissioning Agent (ICA) will be appointed to advise, monitor, and verify the commissioning and tuning of the nominated building systems throughout the design, tender, construction, commissioning and tuning phases.

2.1.3 Adaptation and Resilience

A climate change adaptation and resilience plan will be developed to enable the building design to adapt to possible climate changes and extreme weather events with minimal risk and disruption to the occupants, the building and the community.

2.1.4 Building Information

Comprehensive building operation and maintenance information will be provided for all building systems, as well as a building user's guide, educating building occupants and visitors on the sustainability features of the building and how to use these as intended.

2.1.5 Metering and Monitoring

A best practice metering and monitoring strategy will be implemented to ensure that all energy and water use can be tracked and monitored, ensuring that the building is on track to achieving its performance targets, and promptly identifying any leaks or excessive consumption. Submetering will be provided of all major energy and water uses.

2.1.6 Construction Environmental Management

A best practice Environmental Management Plan (EMP) will be developed and implemented by the head contractor, to assist in managing environmental performance, conditions, and impacts arising from excavation, demolition and construction.

2.1.7 Operational Waste

Facilities will be provided for collection and separation of distinct waste streams for collection by the relevant waste contractor in operation. A Waste Management Plan (WMP) will be provided for building operations.

2.2 Indoor Environmental Quality

Indoor Environmental Quality (IEQ) will be optimised with consideration of indoor air quality, acoustic, thermal and lighting comfort, as well as daylight and views. IEQ strategies are outlined in further detail below.

2.2.1 Indoor Air Quality

The ventilation system will be designed to comply with ASHRAE Standard 62.1 :2013 in regards to minimum separation distances between pollution sources and outdoor air intakes, with good maintenance access. Ductwork will be protected during construction to ensure it remains free of moisture and debris prior to construction.

Air will be supplied at rates 50% greater than the minimum required by AS 1668.2:2012,

Pollutants from printing and photocopy equipment and cooking processes and equipment will be separately exhausted to minimise contamination at the source.

2.2.2 Acoustic Comfort

Comfortable acoustic environments will be provided through the following strategies: Design of internal ambient noise levels to be no more than 5dB(A) above the "satisfactory" sound levels in Table 1 of AS/NZS 2107:2000.

Reverberation will be designed to sit within acceptable limits and acoustic noise separation provided between sensitive enclosed spaces.

2.2.3 Lighting Comfort

Good lighting comfort will be established with flicker free ballasts, appropriate colour perception and lighting levels, reduced glare from lamps and consideration of uniformity.

Occupants will have individual control of their lighting and levels.

2.2.4 Visual Comfort

Glare-free daylight will be maximised through high performance glazing complemented by curtains. Excellent connections to external views will provide amenity for building users.

2.2.5 Indoor Pollutants

In order to minimise indoor air contamination and promote occupant health, paints, adhesives, sealants and wall/ceiling coverings will be selected to have low Volatile Organic Compounds (VOC's), and all engineered wood products will have low formaldehyde emissions.

2.2.6 Thermal Comfort

The high performance façade and deep floor plates will improve thermal comfort of occupants.

2.3 Energy

The project's design seeks to reduce energy consumption, and thereby greenhouse gas (GHG) emissions, by combining a well-designed facade with high-efficiency systems, services and appliances as well as efficiency controls to ensure services are only operating when required by occupants.

Emphasis is placed on good controls strategies as well as reducing the possibility for indoor pollutants from finishes, furniture and fitout items.

2.3.1 Energy strategies

The following strategies are incorporated to ensure energy usage, GHG emissions and peak electrical demand are minimised:

- High-performance Closed Cavity Façade (CCF);
- Efficient heating, ventilation and cooling systems including:
  - High efficiency chillers;
  - Gas-fired hot water generators;
  - Variable speed pumps;
  - Variable speed air handling systems (including EC motors);
  - CO_2 demand control ventilation for high occupancy areas;
  - Sensible heat recovery for high occupancy areas;
  - Metering of mechanical plant and CHW/HHW;
  - Car park with Variable Speed Drive (VSD) ventilation and Carbon Monoxide (CO) controls;
  - Common area ventilation to include efficiency controls such as zoning, motion sensors, and time clock control.
- Efficient lighting systems including:
  - Common areas to have LED lighting throughout, including efficiency controls such as zoning, motion sensors, daylight dimming and time clock control;
  - Rooms to have dimmable LED lighting throughout.
- Efficient swimming pool filtration system to reduce water consumption and water heating energy;
- Load control to limit the input power to the mechanical plant during periods where ambient conditions are greater than design conditions, and allowing the internal temperatures to increase accordingly;
- Rooms to have a shut-off switch for all non-essential power to be turned off when unoccupied;
- Appliances (where installed) will have high energy efficiency ratings such as refrigerators, dishwashers and clothes washing machines;
- Well-ventilated refrigerator spaces to maximise efficiency of refrigerator heat rejection;

The above mentioned strategies will also contribute to reducing peak electrical demand from the development.

2.3.2 National Construction Code (formerly Building Code of Australia) Section J

The National Construction Code/Building Code of Australia (BCA) Section J sets minimum energy performance requirements for all new developments, which cover air-conditioning, ventilation, lighting, power and hot water, as well as building fabric considerations including thermal construction and insulation, building sealing, glazing and shading. The proposed design will be developed to meet the BCA energy efficiency requirements. JV3 modelling has been undertaken to inform the design development.

2.3.3 NABERS

Although no NABERS Rating tool is available for serviced apartments or retail of the type proposed here, the project will target an aspirational 4.0-4.5 Star NABERS Hotel Energy rating (dependent on building user in operation).

2.4 Transport

Low-impact transport has been addressed by the design as well as the site as appropriate to its use. High-end bicycle facilities will be provided for patrons, staff and visitors, while access to existing public transport networks, cycling paths and pedestrian walkways is facilitated and encouraged.

The following alternative transport initiatives are being proposed to improve amenity, promote health and reduce transport related GHG emissions:

2.4.1 Active Transport Facilities

Bicycle parking and associated facilities will be provided to regular occupants, patrons and visitors, including end of trip facilities for staff (showers, changing amenities with appropriate drying space, and lockers). The design of the end-of trip facilities will encourage their use over that of private vehicle use.

2.4.2 Walkable Neighbourhood & Public Transport

The site is located close to many varied amenities, with a 'walk score' of 99% and a 'transit score' of 100%, according to 'Walk Score' (https://www.walkscore.com/AU-NSW/Sydney/Haymarket) . A score above 90% is considered a 'walker's/rider's paradise'.

The project is being designed to maximise pedestrian links for enhanced walkability and access to abundant public transport, including frequent trains and bus routes from Town Hall Station.

2.5 Water

Potable water use will be minimised for the project by selecting efficient fittings, fixtures and appliances as well as rainwater harvesting for reuse. The following efficiency ratings will be achieved for fittings, fixtures and appliances:

- 4/3.5L/flush WCs;
- 0.8L/flush urinals;
- 6L/minute indoor taps;
- 9L/minute showerheads;
- 4-Star washing machines and dishwashers where installed.

Other water savings measures proposed include:

- Drip irrigation with moisture sensor override will be used for all landscaping;
- Water consumed by swimming pool back-wash will be reduced by up to 70% using an efficient swimming pool filtration system;
- Cooling tower cycles of concentration will be limited to 6 to reduce cooling tower make-up water.

Alternative water sources are also proposed to replace potable water demand.

Rainwater harvesting will be incorporated within the hydraulic design to help reduce the potable water demand to the site. Currently, the site incorporates a rainwater harvesting system which captures water from the roof area for re-use across the site. Based on the capture area it has been proposed that a tank with a capacity of 100-150m^3 be installed. This storage capacity shall be further developed as part of the design process to ensure the maximum capture and reuse efficiency.

All captured rainwater will be used for non-potable water requirements. The final areas of use will be determined as part of the Design Development process. During Design Development a water balance will be undertaken to determine the volume of harvested water available and establish the most efficient use of this water. This assessment will focus on minimising energy required for treatment and pumping of rainwater whilst maximising its use.

The fire system includes temporary storage for 80% of the routine fire protection system test water and maintenance drain-downs for reuse on-site. Each floor will be fitted with a sprinkler system has isolation valves or shut-off points for floor-by-for testing.

Although no NABERS Rating tool is available for serviced apartments or retail of the type proposed here, the project will target an aspirational 3.0-3.5-Star NABERS Water rating (dependent on the building user in operation).

2.6 Materials

Materials used in construction are responsible for considerable waste, resource depletion, GHG emissions and water consumption. To minimise these impacts compared to a standard development, the following principles will be applied to material selection on the site:

- Portland cement replacement with industrial waste product such as fly ash;
- Use of reclaimed water in cement mixes;
- Use of manufactured sand in cement mixes;
- Selection of responsible steel products sourced from accredited steel makers and fabricators;
- Selection of FSC or AFS certified timbers;
- Selection of Best Practice Certified PVC products;

- Diversion of at least 90% of construction and demolition waste from landfill;
- Specification of select sustainable products where appropriate, such as those containing recycled content, third-party environmentally certified products, and those with product stewardship agreements in place;
- Localised manufacturing will be supported, reducing transport emissions and providing greater security of supply.

Life Cycle Analysis (LCA) will be undertaken for the project to inform the design and specification of materials. In particular, the following major items will be considered throughout the design development to determine whether life cycle impacts can be reduced: sub-structure; super-structure; envelope; internal walls; internal finishes and services.

2.7 Land Use & Ecology

The project will enhance existing ecological value by reusing a previously developed site with the enhancement of landscaping. The site is not currently ecologically valuable and does not contain any threatened species.

2.8 Emissions

Emissions to water, soil and the sky will be minimised during construction and operation.

2.8.1 Reduced Peak Discharge to Sewer

The post-development peak event stormwater discharge from the site will not exceed the pre-development peak event stormwater discharge. All stormwater discharged from the site will meet pollution reduction targets for total suspended solids, gross pollutants, total nitrogen, total phosphorus, petroleum hydrocarbons and free oils.

2.8.2 Light Pollution

All outdoor lighting on the project, in inhabited boundaries, will comply with AS 4282:1997 and external light pollution will be minimised.

2.8.3 Refrigerant impacts

Refrigerants will be selected with a low Ozone Depletion Potential (ODP).

2.9 Innovation

Innovation credits will be targeted recognising pioneering initiatives in sustainable design, process or advocacy.

A range of innovations will be investigated by the project team during detailed design to determine whether they can be adopted for the project. A maximum of 10 innovation credits can be achieved, including but not limited to:

- Financial transparency: Declaration of the cost of environmentally sustainable design initiatives for the project, to promote transparency and the update of such initiatives on other projects;
- Contractor education: Sustainably training for all contractors on-site;
- Design for Robustness: Reviewing the design and materials to ensure durability for high-traffic surfaces and high-use fittings.

3 Conclusion

The ESD initiatives outlined in this report demonstrate that the proposed 'The Ribbon Hotel, Serviced Apartments and Retail' development exceeds minimum requirements and represents excellence in sustainable development in Australia.

Key strategies such as a high performance façade, careful lighting design and selection of non-toxic finishes will ensure an optimum Indoor Environmental Quality (IEQ) is achieved. Efficient fittings, fixtures and appliances will minimise water consumption which, when combined with rainwater capture and reuse, will assist in meeting water saving targets. Efficient building fabric and services will help to achieve operational energy savings, and active transport facilities will encourage healthier living while reducing carbon emissions from transport.

Further to energy, water and IEQ, the project considers a broad range of environmental impact categories, including ecology, materials, transport and ongoing management.

Appendix A – Green Star Credit Summary

The following table shows a summary of the potential minimum indicative points targeted for the Green Star rating. Points targeted may change during subsequent project stages as the design develops.

CATEGORY / CREDIT	AIM OF THE CREDIT / SELECTION	CODE	CREDIT CRITERIA	POINTS AVAILABLE	5-Star
Management				**14**	
Green Star Accredited Professional	To recognise the appointment and active involvement of a Green Star Accredited Professional in order to ensure that the rating tool is applied effectively and as intended.	1.1	Accredited Professional	1	1
		2.0	Environmental Modelled Targets	-	-
Commissioning and Tuning	To encourage and recognise commissioning, handover and tuning initiatives that ensure all building services operate to their full potential.	2.1	Services and Maintainability Review	1	1
		2.2	Building Commissioning	1	1
		2.3	Building Systems Tuning	1	1
		2.4	Independent Commissioning Agent	1	1
Adaptation and Resilience	To encourage and recognise projects that are resilient to the impacts of a changing climate and natural disasters.	3.1	Implementation of a Climate Adaptation Plan	2	2
Building Information	To recognise the development and provision of building information that facilitates understanding of a building's systems, operation and maintenance requirements, and environmental targets to enable the optimised performance.	4.1	Building Operations and Maintenance Information	1	1
		4.2	Building User Information	1	1
Commitment to Performance	To recognise practices that encourage building owners, building occupants and facilities management teams to set targets and monitor environmental performance in a collaborative way.	5.1	Environmental Building Reporting	1	1
Metering and Monitoring	To recognise the implementation of effective energy and water metering and monitoring systems.	6.0	Metering Strategy	-	-
		6.1	Monitoring Strategy	1	1
Construction Environmental Management	To reward projects that use best practice formal environmental management procedures during construction.	7.0	Environmental Management Plan	-	-
		7.1	Formalised Environmental Management System	1	1
Operational Waste	To recognise projects that implement waste management plans that facilitate the re-use, upcycling, or conversion of waste into energy and stewardship of items to reduce the quantity of outgoing waste	8.1	Waste in Operations	1	1
Total				**14**	

Indoor Environment Quality				**17**	
Quality of Indoor Air	To recognise projects that provide high air quality to occupants.	9.1	Ventilation System Attributes	1	1
		9.2	Provision of Outside Air	2	1
		9.3	Exhaust or Elimination of Pollutants	1	1
Acoustic Comfort	To reward projects that provide appropriate and comfortable acoustic conditions for occupants.	10.1	Internal Noise Levels	1	1
		10.2	Reverberation	1	1
		10.3	Enclosed Spaces	1	1
Lighting Comfort	To encourage and recognise well-lit spaces that provide a high degree of comfort to users.	11.0	Minimum Lighting Comfort	-	-
		11.1	General Illuminance and Glare Reduction	1	1
		11.2	Surface Illuminance	1	1
		11.3	Localised control	1	1
Visual Comfort	To recognise the delivery of well-lit spaces that provide high levels of visual comfort to building occupants.	12.0	Glare Reduction	-	-
		12.1	Daylight	2	
		12.2	Views	1	1
Reduced Exposure to Pollutants	To recognise projects that safeguard occupant health through the reduction in internal air pollutant levels.	13.1	Paints, adhesives, sealants and carpets	1	1
		13.2	Engineered wood products	1	1
Thermal Comfort	To encourage and recognise projects that achieve high levels of thermal comfort.	14.1	Thermal Comfort	1	1
		14.2	Advanced Thermal Comfort	1	1
Total				**17**	
Energy				**22**	
	A. Performance Pathway	15-A.0	Conditional Requirement: Performance Pathway	-	
Greenhouse Gas Emissions		15-A.1	Performance Pathway: Comparison to a Reference Building	20	4
Peak Electricity Demand Reduction		16.1-B	Reference Building Pathway	2	
Total				**22**	
Transport				**10**	
Sustainable Transport	Performance Pathway	17-A.1	Modelled pathway	7	5
Total				**10**	
Water				**12**	
Potable Water	Performance Pathway	18-A.1	Potable Water - Modelled Pathway	12	5
Total				**12**	

Materials				14	
Life Cycle Impacts	Life Cycle Assessment Model	19B.1.1	Portland cement reduction	2	1
		19B.1.2 & 1.3	Water reduction & aggregates reduction	1	1
		19B.2	Steel	2	
		19B.3	Building Reuse	4	
Responsible Building Materials	To reward projects that include materials that are responsibly sourced or have a sustainable supply chain.	20.1	Responsible Steel Maker and Fabricator	1	1
		20.2	Timber	1	1
		20.3	Cables, pipes, floors and blinds	1	1
Sustainable Products	To encourage sustainability and transparency in product specification.	21.1	Sustainable Products	3	
Construction and Demolition Waste	To reward projects that reduce construction waste going to landfill by reusing or recycling building materials	22.1	Reduction of Construction and Demolition Waste	1	1
Total				14	

Land Use & Ecology				6	
Ecological Value	To reward projects that improve the ecological value of their site.	23.0	Endangered, Threatened or Vulnerable Species	-	-
		23.1	Ecological Value	3	
Sustainable Sites	To reward projects that choose to develop sites that have limited ecological value, re-use previously developed land and remediate contaminate land.	24.0	Conditional Requirement	-	-
		24.1	Reuse of Land	1	1
		24.2	Best Practice Site Remediation	1	
Heat Island Effect	To encourage and recognise projects that reduce the contribution of the project site to the heat island effect.	25.1	Heat Island Effect Reduction	1	
Total				6	

Emissions				**5**	
Stormwater	To reward projects that minimise peak stormwater flows and reduce pollutants entering public sewer infrastructure.	26.1	Peak Discharge To Sewer	1	1
		26.2	Pollution Targets	1	1
Light Pollution	To reward projects that minimise light pollution.	27.0	Light Pollution to Neighbouring Properties	-	-
		27.1	Light Pollution to Night Sky	1	1
Microbial Control	To recognise projects that implement systems to minimise the impacts associated with harmful microbes in building systems.	28.1	Microbial Control	1	
Refrigerant Impacts	To encourage operational practices that minimise the environmental impacts of refrigeration equipment.	29.1	Refrigerant Impacts	1	
Total				**5**	

Innovation				**10**	
Innovative Technology or Process	The project meets the aims of an existing credit using a technology or process that is considered innovative in Australia or the world.	30.A	Innovative Technology or Process		
Market Transformation	The project has undertaken a sustainability initiative that substantially contributes to the broader market transformation towards sustainable development in Australia or in the world.	30.B	Market Transformation		
Improving on Green Star Benchmarks	The project has achieved full points in a Green Star credit and demonstrates a substantial improvement on the benchmark required to achieve full points.	30.C	Improving on Green Star Benchmarks	10	2
Innovation Challenge	Where the project addresses an sustainability issue not included within any of the Credits in the existing Green Star rating tools.	30.D	Innovation Challenge		6
Global Sustainability	Project teams may adopt an approved credit from a Global Green Building Rating tool that addresses a sustainability issue that is currently outside the scope of this Green Star rating tools.	30.E	Global Sustainability		2
Total				**10**	

TOTAL	**POINTS AVAILABLE**	
	110	**62**