

MIDTOWN SUSTAINABILITY REPORT

STAGE 2

July 2021



1 INTRODUCTION

This report supports a Development Application for Stage 2 of the Midtown redevelopment, a State Significant Development (SSD) submitted to the Department of Planning and Environment (DPE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). It has been prepared for Aspire Consortium on behalf of NSW Land and Housing Corporation.

Background

In September 2015 the Midtown was rezoned by DPE as part of the Macquarie University Station (Herring Road) Priority Precinct, to transform the area into a vibrant centre that benefits from the available transport infrastructure and the precinct's proximity to jobs, retail and education opportunities within the Macquarie Park corridor.

The Midtown is currently owned by NSW Land and Housing Corporation and comprises 259 social housing dwellings. The redevelopment of the Midtown is part of the NSW Government Communities Plus program, which seeks to deliver new communities where social housing blends with private and affordable housing, with good access to transport, employment, improved community facilities and open space.

The Communities Plus program seeks to leverage the expertise and capacity of the private and non-government sectors. As part of this program, Aspire Consortium, comprising Frasers Property Australia and Mission Australia Housing, were selected as the successful proponent to develop the site in July 2017.

In September 2017, DPE issued the Secretary's Environmental Assessment Requirements for a comprehensive Masterplan application that will establish the framework for the staged redevelopment of the site. This Development Application for Stage 2 of the Midtown redevelopment represents the first stage of detailed works pursuant to the Midtown Masterplan.

Site Description

The Midtown site is located in Macquarie Park near the corner of Epping Road and Herring Road within the Ryde Local Government Area (LGA). The site is approximately 8.2 hectares and currently accommodates 259 social housing dwellings, comprising a mix of townhouse and four storey apartment buildings set around a cul-de-sac street layout. An aerial photo of the site is provided at **Figure 1** below.

Immediately to the north of the site are a series of four storey residential apartment buildings. On the north-western boundary, the site fronts Herring Road and a lot that is currently occupied by four former student accommodation buildings and is likely to be subject to redevelopment. Epping Road runs along the south-western boundary of the site and Shrimptons Creek, an area of public open space, runs along the south-eastern boundary. Vehicle access to the site is via Herring Road.

Midtown comprised of 17 individual lots owned and managed by the NSW Land and Housing Corporation. The Masterplan site also incorporates adjoining land, being a portion of Shrimptons Creek and part of the commercial site at 2-4 Lyonpark Road. This land is included to facilitate a bridge crossing and road connection to Lyonpark Road.





The Site To facilitate road extension to Lyonpark Road Figure 1- Midtown site

Overview of the Proposed Development

The proposed Stage 2 Development Application seeks consent for the second stage of detailed works within the Midtown, pursuant to the Midtown Masterplan under Section 4.22 of the EP&A Act. The Masterplan establishes the planning and development framework against which this Stage 2 Development Application will be assessed.

The Stage 2 Development Application seeks approval for:

- Village green
- Building C2
- Building C3
- Building C4

An image of the Masterplan, identifying Stage2, is provided at Figure 2 below.





Figure 2- Midtown Masterplan stage 2

Sustainability Commitments

The three key sustainability commitments for Midtown are:

- Deliver 5 Star Green Star Design & As Built v1.3 minimum for all buildings
- Deliver 6 Star Green Star Communities v1 for the Midtown precinct
- Deliver an integrated infrastructure solution via 'Real Utilities'



2 FRASERS PROPERTY SUSTAINABILITY PHILOSPHY AND APPROACH

Philosophy

At Frasers Property Australia, we believe that Sustainability isn't just about the environment. It's about creating communities and places that help real people live, play, shop and work in better ways. It's about being a resilient and responsible business, creating more diverse opportunities for our employees and customers, efficient spaces that allow businesses to thrive, and communities that genuinely serve the needs of residents - as well as the planet. It's about minimising our environmental impact in everything we do, and maximising the social and economic benefits for all.

This philosophy is underpinned by "A Different Way" (Refer Appendix 6B), our sustainability strategy launched in 2016. A Different Way is our real commitment to creating places where resources are reused, recycled and restored, where new ideas are fostered for everyone's benefit, and where people can lead better, healthier lives.

Approach

Our approach for Midtown addresses the broader definition of sustainability. It acknowledges that a sustainable organisation not only addresses its environmental impact, but also addresses the communities it develops and interacts with, its people and the marketplace. We believe we are well placed to design and deliver an exemplary community that will achieve in a range of leading sustainability performance indicators. Our recent sustainability achievements include:

- **Nine** Registered **Green Star Communities** projects, **the most of any organisation**. These include the Fairwater community in Blacktown NSW, which is on track to be one of Australia's most sustainable master planned communities and has already received UDIA and Green Globe awards.
- Developing approximately **1.3 million m2** of buildings that are certified or registered under **Green Star**.
- 86,000 people live, work and shop in our Green Star Buildings and Communities
- Over **18,000 homes** that will be **Green Star Certified** or located within Green Star Certified Communities
- Ongoing commitment to supporting the environment and disadvantaged youth through the Frasers Property Foundation. Turning 10 years old this year, the Foundation provides a bank of 500 staff volunteering days per annum and is matched with a donation budget of approximately \$150,000 per annum to identify and support charities and activities in which staff can participate.
- Industry support Frasers Property has supported the Green Building Council of Australia through involvement in technical and advisory groups as well as **sponsorship of several Green Star rating tools**. We are also represented on the GBCA's Green Star Steering Committee and Property Council of Australia's National Sustainability Roundtable.
- Frasers Property is undertaking the Living Building Challenge for the Burwood East Brickworks Retail Centre VIC which, when completed, will be the worlds' most sustainable retail centre.
- Frasers Property benchmarks all community projects against the Green Star Communities tool with a minimum internal target of 5 stars.

As recognition of our leadership in sustainability and demonstrated ability to implement sustainability principles, Frasers Property has been named a **Regional Sector Leader in the 2017 Global Real Sustainability Benchmark (GRESB) Survey**, the international property market's most prestigious and credible measure of commitment to sustainability performance.



3 SUSTAINABILITY BENCHMARK 1

Commitment: Deliver 5 Star Green Star Design & As Built minimum for all buildings

Method: Using the Green Building Council of Australia's current rating tool "Green Star – Design & As Built v1.3" and subsequent releases as appropriate

Our built environment is currently the world's single largest contributor to greenhouse gas emissions, and also consumes around a third of our water, and generates 40 per cent of our waste. From individual buildings to entire communities, Green Star is transforming the way our built environment is designed, constructed and operated. Launched by the Green Building Council of Australia in 2003, Green Star is Australia's only national and voluntary rating system for buildings and communities. Green Star is helping to improve environmental efficiencies in our buildings, while boosting productivity, creating jobs and improving the health and well-being of our communities.

Green Star – Design & As Built assesses the sustainability outcomes from the design and construction of new buildings or major refurbishments, across nine holistic impact categories. An indicative strategy to deliver a 5 Star Design & As Built rating for the Stage 2 Buildings is included in Appendix C, and will be further developed as the project progresses.

Midtown aims to set new Benchmarks in Sustainability under these categories as follows (Note; further commitment details are listed after):

Management

Midtown will utilise practices and processes that support best practice sustainability outcomes throughout the different phases of a project's design, construction and ongoing operation.

Indoor Environmental Quality

Through initiatives that enhance the comfort and well-being of occupants Midtown will look to address issues such as air quality, thermal comfort and acoustic comfort.

Energy

Built Form at Midtown will be designed and constructed to reduce overall greenhouse emissions from operations by addressing energy demand reduction, use efficiency and generation from alternative sources.

Transport

Midtown will look to reduce the dependency of private car use as an important means of reducing overall greenhouse gas emissions, as well as encouraging the provision of alternative forms of transportation.

Water

Built form at Midtown will aim to reduce the consumption of potable water through measures such as the incorporation of water efficient fixtures and building systems and water re-use.

Materials

Midtown will aim to address the consumption of resources for the project, by encouraging the selection of lowimpact materials.

Land Use and Ecology

A key focus of Midtown is to reduce the negative impacts on the sites' ecological value as a result of the development. We aim to minimise harm and enhance the quality of local ecology, particularly around the Turpentine Ironbark Forest along Shrimptons Creek.

Emissions

Midtown aims to reduce its environmental impacts from 'point source' pollution and reduce their effects on the atmosphere, watercourse and native animals.

Innovation

Implementation of innovative practices, processes and strategies that promote sustainability in the built environment will occur throughout the lifetime of the development ensuring that Midtown is recognised as one of the most progressive projects in the country.



4 SUSTAINABILITY BENCHMARK 2

Commitment: Deliver 6 Star Green Star Communities for the Midtown precinct

Method: Using the Green Building Council of Australia's current rating tool "Green Star – Communities v1.1" and subsequent releases as appropriate

Green Star – Communities assesses the planning, design and construction of large scale development projects at a precinct, neighbourhood and/or community scale. It provides a rigorous and holistic rating across five impact categories.

Midtown aims to set new Benchmarks in Sustainability under these categories as follows (Note; further commitment details are listed after):

Governance

Midtown will look to demonstrate leadership within the industry by establishing and maintaining strong governance practices. This will occur through engagement, transparency, as well as community and industry capacity building. We will look to ensure that the Midtown development is resilient to a changing climate. Some of the initiatives being explored include:

- Transparency via design reviews with independent sustainability experts
- Inclusive and comprehensive stakeholder engagement process
- Site Specific Climate Resilience Strategies

Liveability

We aim to deliver a safe, accessible and culturally rich community at Midtown. Accordingly we will focus on the development of healthy and active lifestyles, and look to create a community with a high level of amenity, activity, and inclusiveness. Areas of investigation currently include:

- Health and Fitness classes for all residents
- A safe, walkable and accessible community
- Dedicated Community Development Managers

Economic Prosperity

Midtown will look to promote prosperity and productivity through the creation of equitable living and housing, through investment in education and skills development, and through community capacity building. Current initiatives being explored include:

- Provision of digital infrastructure
- On site energy generation
- Community infrastructure investment

Environment

Reducing the impact of urban development on the local ecosystem is an important objective for Midtown. Resource management and efficiency will be carefully considered through promoting infrastructure, transport, and buildings that have reduced ecological footprints. Accordingly, we will seek to reduce the impacts of this project on the local land and aquatic environments. Ideas currently under consideration include:

- Ensuring WSUD (Water Sensitive Urban Design) principles are applied throughout the precinct
- Urban Heat Island reduction and mitigation strategies
- Waste management strategies
- Life Cycle impacts analyses of materials used on site
- Maximising the ecological value of site to be close to or exceeding existing



Innovation

Implementation of innovative practices, processes and strategies that promote sustainability in the built environment will occur throughout the lifetime of the development ensuring that Midtown is recognised as one of the most progressive projects in the country. A number of innovative concepts are being currently explored on this project including;

- Transparent financial reporting on sustainability initiatives
- Contractor education on sustainability
- Innovative use of technology through an integrated infrastructure solution (Real Utilities)



As part of Aspire's Sustainability Benchmark 2 we will look to incorporate the following initiatives;

6 Star Communities R	ating Targets
6 Star Green Star Com	munities v1.1 including:
Sustainable Site	 Maximise the ecological value of site to be close to or exceeding existing (biodiversity, permeable surfaces, urban greening) Protect the existing Turpentine Ironbark Forest Maintain its functional connection to Shrimptons Creek riparian habitat through the site and with fauna crossings at road intersections. Mitigating the urban heat island effect with extensive landscaped public domain, green roofs, low-SRI roofs and solar PV. Mitigating the urban heat island effect with extensive landscaped public domain, light coloured roofs, green roofs and solar PV. Employ Water Sensitive Urban Design Manage stormwater Manage urban stormwater with water sensitive urban design including rainwater tanks, gross pollutant traps, underground detention tanks, swales/permeable detention basins/bio-filters as appropriate
Transport & Connectivity	A connected and permeable site to encourage active transport and use of public transport At least one bicycle parking space to be provided for each dwelling (>3,500) and at
	least 200 provided for visitors
	Provision of 50 GoGet spaces
	Electric vehicle ready End of trip facilities for non-residential buildings
Community Health and Happiness	To fully quantify and track tangible health and well-being metrics through programs and partnerships including Live Life Get Active and Mission Australia's Strengthening Communities amongst others.
	Public domain that encourages social interaction, has activated street frontages, is adaptable and comfortable, and is pedestrian-oriented
	We also commit to a minimum 200 volunteer hours on various community activities specifically for Midtown.
Living Costs	Development reduces average living costs for households, and average operating costs for businesses, compared with business as usual
	 Whole of life affordability strategy considering: 1. Housing 2. Utilities 3. Food 4. Transit
	The CCAP Precinct report indicates in excess of a 40% reduction in living costs.
Local Economy	Integrate commercial opportunities within precinct, including spaces suitable for small business or home business operations and / or work from- home
	1. Community Hub – fitted out with offices and session rooms for the delivery of MA's tenant support programs and also drop-in offices for the delivery of community services
	 Social Enterprise Space – opportunities for social enterprise development in conjunction with the community.
	 The Strengthening Communities program will deliver opportunities that MA and MAH can create through the operation of the residential community such as: 1. Landscaping 2. Common area maintenance 3. Administration of the Community Hub 4. Live Work Dwellings are incorporated in buildings along the main street which will be suitable for small business or home business



5 SUSTAINABILITY BENCHMARK 3

Commitment: Deliver an integrated infrastructure solution via 'Real Utilities'

Method: Aspire will develop and deliver a private embedded electrical and hot water network to supply all users across the precinct. On the back these embedded networks we will improve their efficiencies by incorporating the following strategies:

- 1. Installation of solar PV to reduce electrical peak demand and greenhouse emissions;
- 2. Use of high efficiency centralised hot water;
- 3. Installation of smart metering technology to allow efficient demand management;
- 4. Minimise use of onsite gas;
- 5. Provision of low-cost heating to the social housing;
- 6. Acquire certified carbon offsets (if required) to ensure that 100% of energy supplied through Real Utilities is NCOS carbon neutral certified.

Community Energy Networks

Private – or "Embedded" – energy networks are increasingly commonplace on new retail, residential and mixed-use developments in Australia. While the distinguishing feature of a Private Network is the establishment of a gate – or "parent" – meter that separates energy users within a new development from the external grid, Private Networks come in many flavours.

Traditional providers of energy have a clear profit motive – the more energy consumed, the more revenue they receive – with little attention to energy efficiency. Increasingly they are participating in the Private Network market, but with little benefit to end-users.

Frasers Property Community Energy Network

In recently establishing an embedded network division, Real Utilities, Frasers Property has the ambition to be the leading provider of energy on new developments in Australia. In addition to a commitment to establishing Private Networks on all its new retail, residential and mixed-use developments, Real Utilities is also in the process of obtaining a Retail Electricity license.

This capability will allow Frasers Property to provide a real difference on the Midtown development with the potential for the following benefits to the people who live and work in those developments to be realised:

- **Lower cost energy.** Real Utilities will match or better the lowest prices of the major electricity retailers. Moreover, it will ensure this is an enduring benefit by constantly resetting prices to be below the best discounted tariff of the three major electricity retailers in the area, without lock-in contracts or honeymoon periods
- Carbon neutral power. Frasers property and Real Utilities will supply certified carbon neutral power through maximising solar PV installation to the available roof-space, and acquiring certified carbon offsets for 100% of the grid sourced electricity and greenhouse gas emissions within its Private Networks. The power will be certified carbon neutral under the Australian Government's National Carbon Offset Standard (NCOS)



- Greater demand management by end-users. Frasers Property and Real Utilities will install the latest smart meter technology within its Private Networks to provide residents with usable access to their energy consumption data and to time of use energy tariffs

These benefits will have greatest impact on reducing energy demand and the costs of energy consumed will contribute to a reduction in the financial stress that underlies utility disconnections.







As part of Aspire's Sustainability Benchmark 3 we will look to incorporate the following initiatives;

Integrated Infrastruct	ure Solution (Real Utilities) Targets
Provide an optimised in	itegrated infrastructure solution
Private wire electricity supply	Real Utilities will establish the precinct with one or more private wire networks by installing gate meters
	 These private networks allow for: 1. The purchase of grid electricity at bulk, with savings passed on to the residents and businesses 2. The optimal integration of renewable energy generation on site 3. Implementation of energy efficiency measures at scale 4. 100% of power supplied by Real Utilities will be NCOS carbon neutral certified 5. Continued Government concessions and subsidies to Social housing residents by Real Utilities
Smart metering and energy monitoring	 Without charge to any of the precincts residents, Frasers Property and Real Utilities will install the latest smart meter technology which will give residents access to: 1. Time of use energy tariffs 2. Their energy consumption data so they may make better energy use decisions
On-site renewable energy	Ensure that on-site renewable energy generation from Solar PV is maximised wherever possible
	Based on the current site density and restricted roof space available, this is estimated to be near 1,500 kW, which will be increased wherever feasible
100% Carbon Neutral power	Without charge to any of the precinct's residents, Real Utilities will supply 100% certified carbon neutral power. The energy will be certified under the Australian Government's National Carbon Offset Standard
	Based on current projected energy loads Frasers Community Utilities will procure offset certificates for the precinct's approximately 12,000 tonnes of CO2 emissions each year
	To ensure the durability of this feature, Frasers will acquire at least the first 5years' worth of certificates at or prior to completion of each building
Affordability	Real Utilities will provide all residents with electricity cost savings, at tariffs which better those of the 3 major electricity retailers in the area.
	The benefit delivered by Real Utilities will be achieved by constantly resetting prices at below the best discounted rate of the major electricity retailers, without lock-in contracts or honeymoon periods.
	Real Utilities will provide affordable heating to the social housing residents via a radiant heating system, & will be provided at a nominal to zero cost
Centralised hot	Frasers Property will provide residents with centralised hot water
water	The energy component of hot water will be invoiced Real Utilities, while the water component of the hot water will be invoiced by the water provider
	Hot water tariffs will set at below standard tariffs
Electric/ induction	Frasers Property will provide electric / induction cooktops for residents
cooktops	Electric cooktops are preferred by Frasers Property's social housing bid partner
Energy efficient cooling and heating	Frasers Property will procure energy efficient split air-conditioning systems for the non-Social housing dwellings
	The base solution for Social housing residents is ceiling fans and provisions for future spilt system air conditioners
	Heating will be provided to social housing residents via a radiant heating system, which will be provided at a nominal to zero cost



APPENDICES

A. EXPERT SUSTAINABILITY CERTIFIER SUPPORT LETTER

13 July 2021



Scott Clohessy Frasers Property Australia Suite 11 Lumiere Commercial Level 12 101 Bathurst Street Sydney NSW 2000 Australia

Ref: 640018.000

Dear Scott

Re: Midtown Precinct Expert Certificate

This letter provides a certificate of review for the Midtown Sustainability Report (July 2021) against the Sustainability Benchmarks identified within the PDA.

The benchmarks are:

- Commitment 1: Deliver 5 Star Green Star Design & As Built minimum for all buildings using the Green Building Council of Australia's current rating tool "Green Star – Design & As Built v1.1" and subsequent releases as appropriate
- Commitment 2: Deliver 6 Star Green Star Communities for the Ivanhoe precinct using the Green Building Council of Australia's current rating tool "Green Star – Communities v1.1" and subsequent releases as appropriate
- 3. Commitment 3: Deliver an integrated infrastructure solution via 'Real Utilities' with the development and delivery of a private embedded electrical and hot water network to supply all users across the precinct. On the back these embedded networks we will improve their efficiencies by incorporating the following strategies:
 - Installation of solar PV to reduce electrical peak demand and greenhouse emissions;
 - Use of high efficiency centralised hot water;
 - Installation of smart metering technology to allow efficient demand management;
 - Minimise use of onsite gas;
 - Provision of low-cost heating to the social housing;
 - Acquire certified carbon offsets (if required) to ensure that 100% of energy supplied through Real Utilities is NCOS carbon neutral certified.

The Sustainability Report demonstrates the approach to compliance for the Green Star benchmarks and Real Utilities approach, supported by the associated reports for the planning submission and the following documents:

- Development Application Sustainability Reports for C2, C3 and C4



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- Green Star D&AB Scorecard;
- Green Star Communities Scorecard.

Subject to the implementation of the stated initiatives that correspond with these scorecards, over the course of the design and delivery phases of the project; and the delivery of the Real Utilities service as described in the report; the benchmark commitments can be considered to achieved for this stage of design.

Richard Palmer

Principal

Richard Palmer

On behalf of Integral Group

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B. GREEN STAR COMMUNITIES INDICATIVE SCORECARD

Green Star Communities scorecards are appended to this report to demonstrate that the initiatives identified are able to meet the benchmark requirements. As the project proceeds through planning, design and construction, the balance of initiatives and credits targeted will likely change based on design, predicted performance and whole-of-life cost. The flexibility to changes to the individual credit strategies is an important aspect of the Green Star rating tools, providing opportunities for an optimised sustainability strategy that achieves equivalent performance, provided the total points and certified rating are maintained.

CATEGORY / CREDIT	CODE	CREDIT CRITERIA	POINTS AVAILABLE	POINTS TARGETED
GOVERNANCE				
Green Star Accredited Professional	1.0	Green Star Accredited Professional	1	1
Design Review	2.1	Site Planning and Layout	4	4
	2.2	Urban Design	4	4
Engagement	3.1	Stakeholder Engagement Strategy	3	3
	3.2	Strategy Implementation	3	3
Adaptation and	4.1	Climate Adaptation	2	2
Resilience	4.2	Community Resilience	2	2
Corporate	5.1	Corporate Responsibility	1	1
Responsibility	5.2	Sustainability Reporting	2	2
Sustainability	6.1	Community Users' Guide	1	1
Awareness	6.2	Sustainability Education Facilities	1	0
Community	7.1	Community Facility Management	1	1
Participation and Governance	7.2	Community Program Management	1	1
Environmental	8.1	Environmental Management System	1	1
Management	8.2	Environmental Management Plan	1	1
Total			28	27.0

LIVEABILITY				
Healthy and	9.0	Minimum Requirement - Footpaths	-	Complies
Active Living	9.0	Minimum Requirement - Footpaths	-	Complies
	9.1	Active Lifestyle	2	2
	9.2	Recreational Facilities	2	2
	9.3	Healthy Places	1	1
Community Development	10.0	Minimum Requirement - Community Development Plan	-	Complies
	10.1	Community Development Officer	1	1
	10.2	Community Group	1	1
	10.3	Community Events	1	1
	10.4	Community Information	1	1
Sustainable	11.1	Certified Non-Residential Buildings	-	
Buildings	11.2	NatHERS and Livable Housing Australia	4	1



Culture, Heritage and Identity	12.1	Understanding Culture, Heritage and Identity	1	1
	12.2	Enhancing Community Culture, Heritage and Identity	2	2
Walkable Access to Amenities	13.1	Walkable Access to Amenities	2	2
Access to Fresh Food	14.1	Access to Fresh Food	1	1
	14.2	Local Food Production	1	1
Safe Places	15.0	Minimum Requirement - Visibility	-	Complies
	15.1	Design for Safety	2	2
Total			22	19.0

ECONOMIC INVESTMENT				
Community Investment	16.1	Community Infrastructure Investment	4	4
Affordability	17.1	Residential Affordability Strategies	4	4
	17.2	Non- Residential Affordability Strategies	-	
Employment and	18.1	Net Percentage Increase of Local Jobs	1	0
Economic Resilience	18.2A	Diverse Local Employment – Performance Pathway	-	
	18.2B	Proximity to Major City – Prescriptive Pathway	1	0
	18.2C	NCC Class mix – Prescriptive Pathway	-	
Education and Skills	19.1	Higher Education Facilities	1	1
Development	19.2	Skills Development Programs	1	1
	19.3	Industry Capacity Development	1	
Return on	20.1	Analysis of Direct Costs and Benefits	1	
Investment	20.2	Analysis of Indirect Costs and Benefits	1	
Incentive Programs	21.1	Residential Incentives	2	2
	21.2	Non-residential Incentives	-	
Digital	22.1	High-speed Broadband	1	1
Infrastructure	22.2	Wireless Local Area Network	1	1
Peak Electricity Demand	23A	Reduced Peak Electricity Demand - Performance Pathway	-	
	23B.i	On-site Generation – Prescriptive Pathway	2	
	23B.ii	Energy Storage – Prescriptive Pathway	-	
Total			21	14.0

ENVIRONMENT				
Integrated Water Cycle	24A.1	Stormwater – Performance Pathway	2	2
	24A	Water Sensitive Urban Design – Performance Pathway	5	2
	24B.1	Alternative Water Sources - Public Open Spaces	-	
	24B.2	Alternative Water Sources - Buildings	-	
	24B.3	Stormwater Peak Discharge	-	
	24B.4	Stormwater Quality	-	



Greenhouse Gas Strategy	25A	Greenhouse Gas Strategy – Performance Pathway	6	6
	25B.1	Energy Efficiency - Infrastructure Lighting	-	
	25B.2	Energy Efficiency - Existing Buildings	-	
	25B.3	Renewable Energy Production	-	
	25B.4	District Heating and Cooling	-	
Materials	26A	Life Cycle Assessment (LCA) — Performance Pathway	-	
	26B	Life Cycle Impacts – Prescriptive Pathway	3	1.5
Sustainable Transport and	27A	Sustainable Transport and Movement: Performance Pathway	3	3
Movement	27B	Sustainable Transport and Movement: Prescriptive Pathway	-	
Sustainable Sites	28	Conditional Requirement	-	Complies
	28.1	Previously Developed Land	1	1
	28.2	Best Practice Site Decontamination	1	
Ecological Value	29.1	Change of Ecological Value	1	0
	29.2	Biodiversity Enhancement	1	0
Waste	30.1	Construction, and Demolition Waste	1	0.7
Management	30.2	Operational Waste	1	1
Heat Island Effect	31.1	Heat Island Effect	1	1
Light Pollution	32.1	Light Pollution	1	1
Total			27	19.2
INNOVATION				
Innovative Technology or Process	33A	Innovative Technology or Process	10	
Market Transformation	33B	Market Transformation		1
Improving on Green	33C	Improving on Green Star Benchmarks		
Star Benchmarks	330			
	33D	Innovation Challenge		2
Star Benchmarks Innovation				2
Star Benchmarks Innovation Challenge Global	33D	Innovation Challenge	10	2 3
Star Benchmarks Innovation Challenge Global Sustainability	33D	Innovation Challenge	10	
Star Benchmarks Innovation Challenge Global Sustainability	33D	Innovation Challenge	10 AVAILABLE	
Star Benchmarks Innovation Challenge Global Sustainability	33D	Innovation Challenge Global Sustainability		3
Star Benchmarks Innovation Challenge Global Sustainability	33D	Innovation Challenge Global Sustainability TOTALS	AVAILABLE	3 TARGETED
Star Benchmarks Innovation Challenge Global Sustainability	33D	Innovation Challenge Global Sustainability TOTALS CORE POINTS	AVAILABLE	3 TARGETED 79.2



C. GREEN STAR DESIGN AND AS BUILT INDICATIVE SCORECARDS AND DETAILED REPORTS FOR BUILDINGS C2, C3 and C4

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