

City of Parramatta  
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Submitted via email: [environmentallysustainable@cityofparramatta.nsw.gov.au](mailto:environmentallysustainable@cityofparramatta.nsw.gov.au)

16 June 2017

Dear Mr Matthews,

**RE: CITY OF PARRAMATTA DRAFT ENVIRONMENTAL AND SUSTAINABILITY STRATEGY**

The Green Building Council of Australia (GBCA) welcomes the opportunity to make this submission to City of Parramatta (City) on the *Draft Environment and Sustainability Strategy (Strategy)*. The GBCA commends the City on the draft *Strategy*, and acknowledges the ongoing relationship between our organisations and looks forward to building upon this to achieve the actions proposed in the draft *Strategy*.

**About the GBCA**

As you are aware, the GBCA is the industry association committed to developing buildings, cities and communities that are productive, liveable, healthy, resilient and sustainable:

- **We rate** the sustainability of buildings and communities through Australia's only national, voluntary, holistic rating system – Green Star.
- **We educate** industry and government practitioners and decision-makers and promote green building programs, technologies, design practices and operations.
- **We advocate** for the sustainable transformation of the built environment.

The GBCA represents 650-plus individual companies with a collective annual turnover of more than \$40 billion. Our membership reflects the diversity of Australian business with over 500 small-to-medium enterprises through to 75 companies with annual turnover of more than \$100 million and 24 companies now listed in the ASX200, with a combined market capitalisation of more than \$620 billion. Members include major developers, professional services firms, banks, superannuation funds, product manufacturers, retailers, suppliers and government including 43 local governments across Australia.

This submission focusses on the two themes, 'Built for the Future', and 'Connected and Resilient Communities', and identifies how the GBCA through the Green Star rating tools can assist the City achieve the draft actions.

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**Priority Area: Built for the Future – How Green Star can assist the City in planning, development controls, and retrofitting programs.**

The GBCA acknowledges that this priority area is about sustainable design that uses less water, energy and materials to do more. The City's action to 'Investigate planning and development controls for higher water efficiency in growth precincts', should include, where applicable, the mandating of Green Star as the rating tool of choice to assist the City in meeting its draft actions.

To assist the built environment, the property and construction industry, as well as government play its part in achieving Australia's emission reduction targets and to keep global warming within 2-degrees, the GBCA has recently completed a nation-wide consultation on the discussion paper, '*A carbon positive roadmap for the built environment*'. The discussion paper set the scene for a 1.5-degree future and outlined potential priorities for the industry, and the roadmap for action, such as defining carbon neutral buildings and precincts (a draft paper will be released for comment in late 2017).

Our goal is to build a carbon positive future that is healthy, productive and resilient through cost-effective and achievable actions. To do this, we will be working with industry to achieve the following priorities:

- 1- Promote energy efficiency – driving quality design first, and efficient systems next
- 2- Drive investment in resilient, renewable, energy infrastructure in Australia
- 3- Increase markets for net zero carbon products, materials and services
- 4- Promote offsets for any remaining emissions.

Green Star is Australia's only national, voluntary and holistic rating system for sustainable buildings and communities. The Green Star rating system has been developed by the Australian industry and locally adapted to suit the Australian market. From individual buildings to neighbourhoods, precincts and entire communities, Green Star is transforming the way our built environment is designed, constructed and operated. The City was the first local government in Australia to register for Green Star – Communities certification for Parramatta square and mandate Green Star – Design & As Built outcomes for all buildings within the precinct.

The City of Melville (Melville) in Western Australia have recently investigated planning and development controls and adopted Green Star as their rating tool of choice for the *Canning Bridge Activity Plan (Plan)*. The *Plan* area is less than eight kilometres from the Perth CBD, with direct road, public transport, walking and cycling access. The area will comprise a mix of residential, civic, office, retail and entertainment uses. The *Plan* establishes a foundation for the future of the area including objectives and goals for its ongoing development and guidelines for the style of built form, which is expected. By replicating similar planning and develop controls, the City will be in a stronger position to achieve the actions set out in this draft *Strategy*. Melville mandates Green Star certification in the following way:

***A 5 Star Green Star – Design & As Built certified rating (demonstrating 'Australian Excellence') must be achieved from the Green Building Council of Australia (GBCA). Prior to the commencement of development, a Green Star Registration Certificate must be submitted to the City for the attention of the Manager Statutory Planning to confirm the intention to achieve an As Built rating. This should be supported by a project plan or similar confirmation document. Within 24 months of practical completion, As Built certification must be achieved, as per the Green Star – Design & As Built requirements, and evidence of this provided in writing to the City for the approval of the Manager Statutory Planning, City of Melville.***

### The Value of Green Star

The *Value of Green Star* report (2013), looked to quantify the overall impact of the Green Star rating system on greenhouse gas emissions, operational energy usage, operational water consumption and construction and demolition waste. The study compared data from 428 Green Star-certified projects with buildings that just met average or minimum practice standards.

The report found that on average, Green Star-certified buildings:

- produce 62 per cent fewer greenhouse gas emissions than average Australian buildings
- use 66 per cent electricity than average Australian buildings
- use 51 per cent less potable water than if they had been built to minimum industry requirements
- recycled 96 per cent of their construction and demolition waste

The higher the Green Star rating, the greater the environmental savings across all key areas – greenhouse gas emissions, energy use, water consumption and construction and demolition waste.

In line with the GBCA's strategic priorities and proposed revisions to Green Star – Design & As Built and Green Star – Interiors, additional emphasis is being placed on the reduction of greenhouse gas emissions for Green Star projects, and this aligns with the *Strategy*. The proposed revisions will introduce minimum greenhouse gas emissions thresholds in order to achieve higher-level Green Star ratings (5 and 6 Star).

**Proposed minimum points thresholds are listed below:**

Green Star rating	Minimum Points in GHG Emissions Credit	Improvement over BCA
4 Star	1 (Conditional Requirement)	10 per cent
5 Star	3	25 per cent
6 Star	6	40 per cent

This proposed change guarantees that Green Star rated buildings are significantly improving on National Construction Code requirements. As benchmarks increase over time, Green Star rated buildings will continue to excel in energy, emissions, and water efficiency.

The GBCA would also like to work with the City on the development of a 'Retrofit program for existing buildings to improve their water and energy efficiency', through the uptake of Green Star – Performance and Green Star – Interiors.

Green Star – Performance can provide a useful resource for government and commercial buildings to assess operational performance, and take practical action to improve their environmental and financial sustainability overtime. The versatility of Green Star – Performance means that it can rate buildings beyond commercial office buildings to include schools, public buildings, hospitals, shopping centres, and industrial buildings, with over 411 Green Star – Performance certified projects across Australia.

The Green Star – Performance 'Energy' category aims to reward building owners implementing strategies and taking actions to measure and reduce a buildings operational energy use, below that of a comparable standard-practice building. Such reductions are directly related to reduced greenhouse gas emissions, lower overall energy demand as well as reductions in operating costs for building owners and occupants.

It is worth noting that for eligible buildings, NABERS Energy and Potable Water ratings are used to satisfy performance data requirements within the Green Star – Performance. Where buildings are not able to obtain NABERS Energy ratings, Green Star – Performance sets out a number of alternative pathways for project teams to provide energy performance data.

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**Priority Area: Connected & Resilient Communities – The role of Green Star – Communities.**

For new precinct and master-planned communities, as is currently being undertaken with Parramatta Square, the GBCA recommends the City reference Green Star – Communities were relevant to assist in achieving the actions within the priority area 'Connected & Resilient Communities', with particular reference to 'Sustainable transport, and 'Urban heat'.

The Green Star – Communities rating tool, established in 2012 as the only holistic, voluntary rating tool for communities and precincts of its kind in Australia, now has a proven record of accomplishment in delivering concrete outcomes and benefits across a range of projects. Developed in consultation with industry and all levels of government, the rating tool examines issues of economic, social and environmental importance and encourages and recognises projects that deliver sustainable buildings and energy efficient homes, designed and constructed to meet the changing needs of occupants across their lifetime. The Green Star – Communities rating tool provides an agreed framework and set of benchmarks for measuring sustainability outcomes such as affordable housing, sustainable transport, provision of local jobs, investment in education and skills development as well as enhanced productivity through the digital economy. The five Green Star – Communities best practice principles are:

- Foster environmental responsibility
- Enhance liveability
- Create opportunities for economic prosperity
- Embrace design excellence
- Demonstrate visionary leadership and strong governance.

The Green Star – Communities 'Walkable Access To Amenity' credit aims to encourage and recognise projects that have walkable access to a diverse number of amenities that reflect the predicted demographic of the projects community. The 'Heat Island Effect' credit aims to encourage and recognise projects that implement measures to reduce heat island effect.

### **Green Star – Communities - Tonsley Innovation District**

When Tonsley's masterplan was being developed back in 2012, the South Australian Government set a clear brief for the site. The former manufacturing park was to become a sustainable centre for innovation and productivity, drawing workers, developing high-value industries and contributing to the state's economic success. Fast forward to 2015 and Tonsley Innovation District was Australia's first mixed-use urban redevelopment to be awarded 6 Star Green Star – Communities certification.

To achieve these goals, Tonsley needed to incorporate the right mix of uses, and to facilitate connections between people, businesses and educational institutions. Adaptive reuse of existing infrastructure helped to do this by creating a central hub of activity for the community and plenty of opportunities for social and commercial interaction.

While planning Tonsley, the project team created a *Site Wide Built Form Development Manual* and site-specific *Urban Design Protocol* to ensure all buildings adhere to the sustainability and liveability vision for the site – and in doing so has set new benchmarks for sustainable urban renewal in Australia.

The former Mitsubishi Main Assembly Building (MAB) was retained and re-purposed, preventing the loss of approximately 90,000 tonnes of carbon emissions in its original construction. Once complete the MAB will house a range of flexible modular pod tenancies occupied by small to medium businesses from the high-value manufacturing sector while incorporating retail outlets, meeting areas, education spaces and a number of forests and plazas.

Education and research are true cornerstones of the Tonsley Innovation District masterplan, with Flinders University and TAFE SA signing up as anchor partners in the development.

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Tonsley's masterplan also incorporates approximately 11 hectares of residential space, which will eventually be home to around 1,200 people. Creating homes will ensure the district remains active outside of business hours, and give the opportunity for those who work or study at Tonsley to live close by. The train station is at the doorstep of the residential area, with new electric trains meaning faster, more frequent and cleaner journeys to the city. The result? Fewer transport emissions and a cohesive community identity.

Over the coming years, Tonsley will become firmly established as an economic growth engine for South Australia as the district reaches a critical mass of industry, research, education and commercial activity collocated on the site.

By referencing Green Star – Communities in policies and encouraging its use for suitable development projects, the City can take advantage of the sustainability benchmarks and common language developed for the rating tool through extensive and ongoing consultation by the GBCA. This will assist the City in achieving the actions set out within the priority area with a focus on issues such as Heat Island Effect and Sustainable Transport measures.

The GBCA thanks the City of Parramatta for the opportunity to provide comment on the *Draft Environmental and Sustainability Strategy* and looks forward to working closely with the City to achieve the actions the draft sets out. Please do not hesitate to contact me by phone on (02) 8239 6200, or via email at [luke.farr@gbca.org.au](mailto:luke.farr@gbca.org.au) for further information.

Yours sincerely,



**Luke Farr**  
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