

CURTIN UNIVERSITY
PROJECT DELIVERY GUIDELINES

GREEN STAR – COMMUNITIES
DESIGN GUIDELINES

000325



Curtin University

Details of Revisions

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1 INTRODUCTION

Curtin is a future looking, fast moving and ambitious University committed to positioning itself as a global leader in research, education and engagement.

Curtin has embarked on a bold journey to transform its Bentley Campus from an isolated suburban university into a vibrant city university defined by the synergies of research, business and entrepreneurial enterprise. The Greater Curtin Master Plan outlines Curtin's path to achieve this vision. Greater Curtin, a 'City of Innovation', offers people – be they staff, researchers, students, community members or employees from a variety of industries – the opportunity to learn, live, work, and play in a sustainable environment where knowledge and innovation extend beyond buildings.

In 2015, the Greater Curtin Master Plan was awarded Australia's first 5-Star Green Star – Communities rating from the Green Building Council of Australia (GBCA).

This document outlines considerations that project teams need to make when delivering capital works programs of work that could have an impact on Curtin University's 5 Star Green Star – Communities rating.

1.1 AUDIENCE

This document has been developed for all project team members, including consultants, sub-consultants, contractors, sub-contractors, services and goods suppliers and project managers.

1.2 SCOPE

This document provides guidance on Green Star – Communities requirements and the specifications applicable for all capital works programs of work carried out on the Bentley Campus.

2 GREEN STAR AND CURTIN UNIVERSITY

In February 2015, Curtin University was awarded Australia's first 5-Star Green Star – Communities rating from the Green Building Council of Australia (GBCA).

The 5-Star rating, which equates to 'Australian Excellence', was earned after the Greater Curtin Master Plan was assessed against benchmarks for:

- governance
- innovation
- design excellence
- environmental sustainability
- economic prosperity
- liveability.

Where reasonable, Australian Excellence Green Star – Communities principles should be incorporated into designs by project teams either working on or seeking to work on capital works programs.

2.1 GREEN STAR – RATING TOOLS

There are currently four Green Star rating tools that cover the design, construction and operation of sustainable fitouts, buildings and communities.

2.2 GREEN STAR – COMMUNITIES

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 six impact categories: governance, design, liveability, economic prosperity, environment and innovation.

Green Star – Communities certification is re-certified every five years to ensure works are occurring as planned and continue to align with Green Star values. All activities on the Bentley Campus must therefore ensure they do not endanger this achievement, and should seek to strengthen it wherever possible.

Curtin's Green Star – Communities certification was awarded under the Pilot v0.1 Version, and re-certification is assessed against the same. Project teams must refer to the reference documents cited in the Green Star – Communities Pilot v0.1 and review all information required to achieve compliance. Pilot v0.1 is a legacy rating and is no longer available from the GBCA website – project teams should contact the GBCA or the Curtin University Green Star team to obtain a copy of the guidelines. Use of updated versions of the Green Star – Communities certification tool will not be accepted unless prior agreement has been obtained from the Curtin University Green Star team.

2.3 GREEN STAR – COMMUNITIES CHECKLIST

Curtin University has also prepared a Green Star – Communities Pilot v0.1 compliance checklist that outlines credits available in the certification and highlights those targeted in the original certification. Project teams should consider credits achieved in the original certification and are expected to produce a report and provide supporting

documentation to demonstrate compliance and ensure their proposal does not jeopardise the achieved 5-Star rating. Project teams are also encouraged to identify opportunities to achieve credits not currently awarded or targeted to assist Curtin to improve upon its current rating.

The Green Star – Communities Pilot v0.1 compliance checklist can be found in the reference materials on the Project Delivery Guidelines website at:

<http://properties.curtin.edu.au/workingwithus/guidelines.cfm>.

2.4 GREEN STAR RATING TOOLS – DESIGN & AS BUILT AND INTERIORS

Project teams are also encouraged to assess the suitability of Green Star – Design & As Built and Green Star – Interiors.

Green Star – Design & As Built assesses the sustainability of outcomes from the design and construction of new buildings or major refurbishments.

Green Star – Interiors assesses the sustainability of outcomes of interior fitouts.

Both rating tools assess projects across nine holistic impact categories. These categories include:

- management
- indoor environment quality (IEQ)
- energy
- transport
- water
- materials
- land use and ecology
- emissions
- innovation.

Information on both tools can be found at <http://new.gbca.org.au/green-star/>.

Project teams should refer to the current version of the relevant Green Star Performance Rating Tool found on the GBCA website prior to commencing their submission.

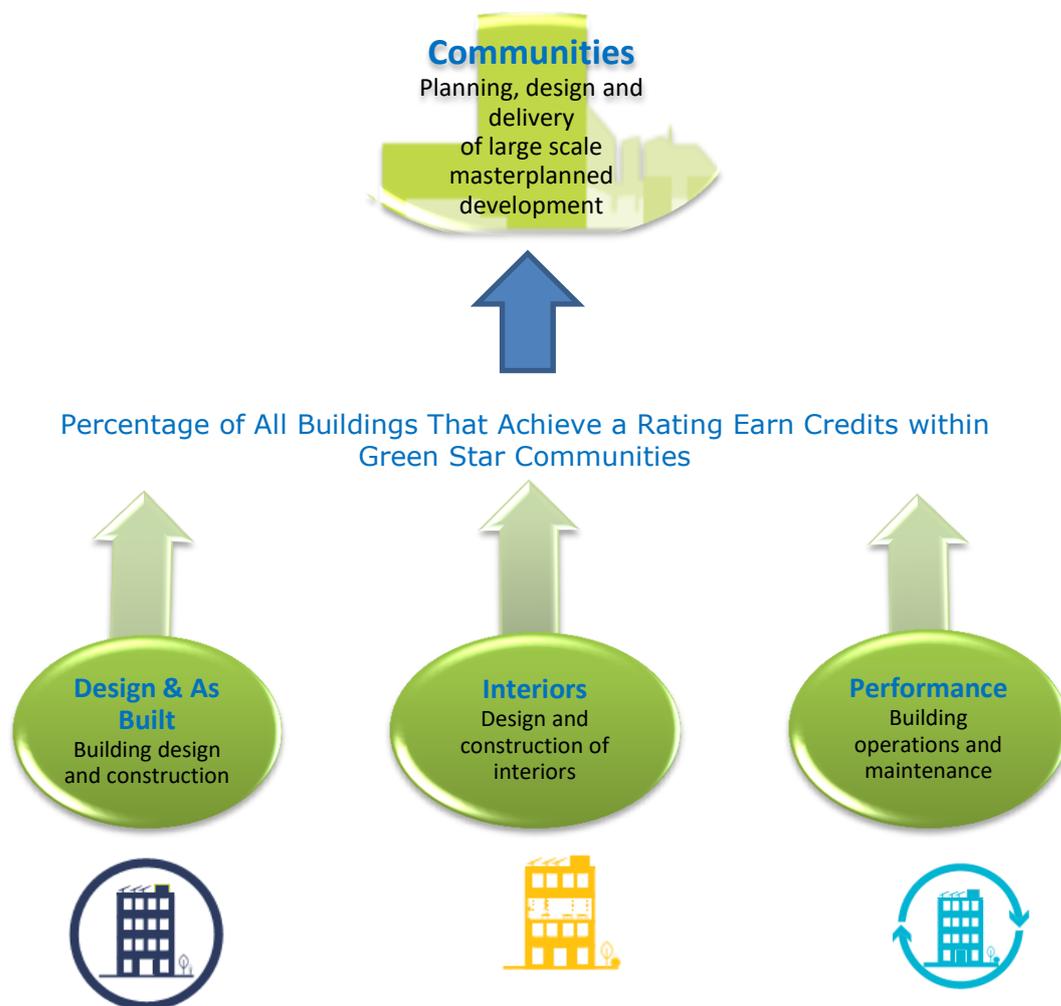


Figure 1 - Green Star Rating Tools

The following also positively support a Green Star – Communities rating (refer diagram above)

- certification under other Green star rating tools (Design & As Built, Interiors and Performance)
- NatHERS rating (applies to residential buildings)
- NABERS rating (performance)
- certification in accordance with Liveable Housing Design guidelines.

3 GREEN STAR – COMMUNITIES CREDIT CATEGORIES

3.1 DESIGN

Aims to encourage sustainable urbanism through best practice planning and design practices. The category seeks to create places for people, by encouraging smart growth, which is compact, connected and people focused.

Project teams should ensure a consistent approach to project delivery as defined in the Properties Facilities and Development (PF&D) IMS and Capital Works delivery model.

Key elements include:

- site context – Curtin Master Plan
- context analysis – site and local site
- design review – site and urban.

3.2 GOVERNANCE

Aims to encourage and recognise developers and projects that demonstrate leadership within the sector, by establishing and maintaining strong governance practices. The category promotes engagement, transparency, as well as community and industry capacity building. It also seeks to ensure that community projects are resilient to a changing climate.

Key elements include:

- Green Star Accredited Professional – engagement and involvement
- Community Users' Guide – healthy and active living, access to fresh food, waste management, and transport facilities, activities and methodologies
- Stakeholder Engagement Strategy and Implementation Plan
- Project Vision
- Community resilience plan
- Environmental Management – contractor accreditation to ISO 14001 and project specific Environmental Management Plan (NSW Environmental Management System Guidelines).

3.3 LIVEABILITY

Aims to encourage and recognise developments that deliver safe, accessible and culturally rich communities. The category encourages the development of healthy and active lifestyles, and rewards communities that have a high level of amenity, activity, and inclusiveness.

Key elements include:

- access to amenities – proximity and ease of access between habitable buildings and diverse amenities

- healthy and active living – access to walking and bike networks, appropriate crossings, lighting, intersections and parking
- safe places – design for safety
- culture, heritage and identity – adaptive reuse.

3.4 ECONOMIC PROSPERITY

Aims to encourage and recognise projects that promote prosperity and productivity. The category encourages affordable living and housing, investment in education and skills development, and community capacity building. This category also promotes greater productivity through emerging opportunities in the digital economy.

Key elements include:

- community investment – community infrastructure investment
- digital infrastructure – fibre to the premises, fixed wireless connectivity, WLAN
- peak electricity demand – non-electric energy sources.

3.5 ENVIRONMENT

Aims to reduce the impact of urban development on ecosystems. It encourages resource management and efficiency by promoting infrastructure, transport, and buildings, with reduced ecological footprints. The Environment category seeks to reduce the impacts of projects on land, water, and the atmosphere.

Key elements include:

- sustainable sites – previously developed land, best practice site decontamination
- heat island effect
- light pollution
- sustainable buildings – Green Star certification across other Green Star rating tools, NatHERS and Liveable Housing Design
- potable water consumption – irrigation using non-potable water/no irrigation, alternatives to potable water for buildings
- stormwater – retention and evaporation, filtering and treatment of stormwater, monitoring of pollutants
- materials – sourcing of key materials (concrete, steel, asphalt), alternatives to PVC
- waste management – waste reduction plan, recycling/reuse of demolition waste, recycling and hazardous waste collection measures for operational waste
- transport – public transport.

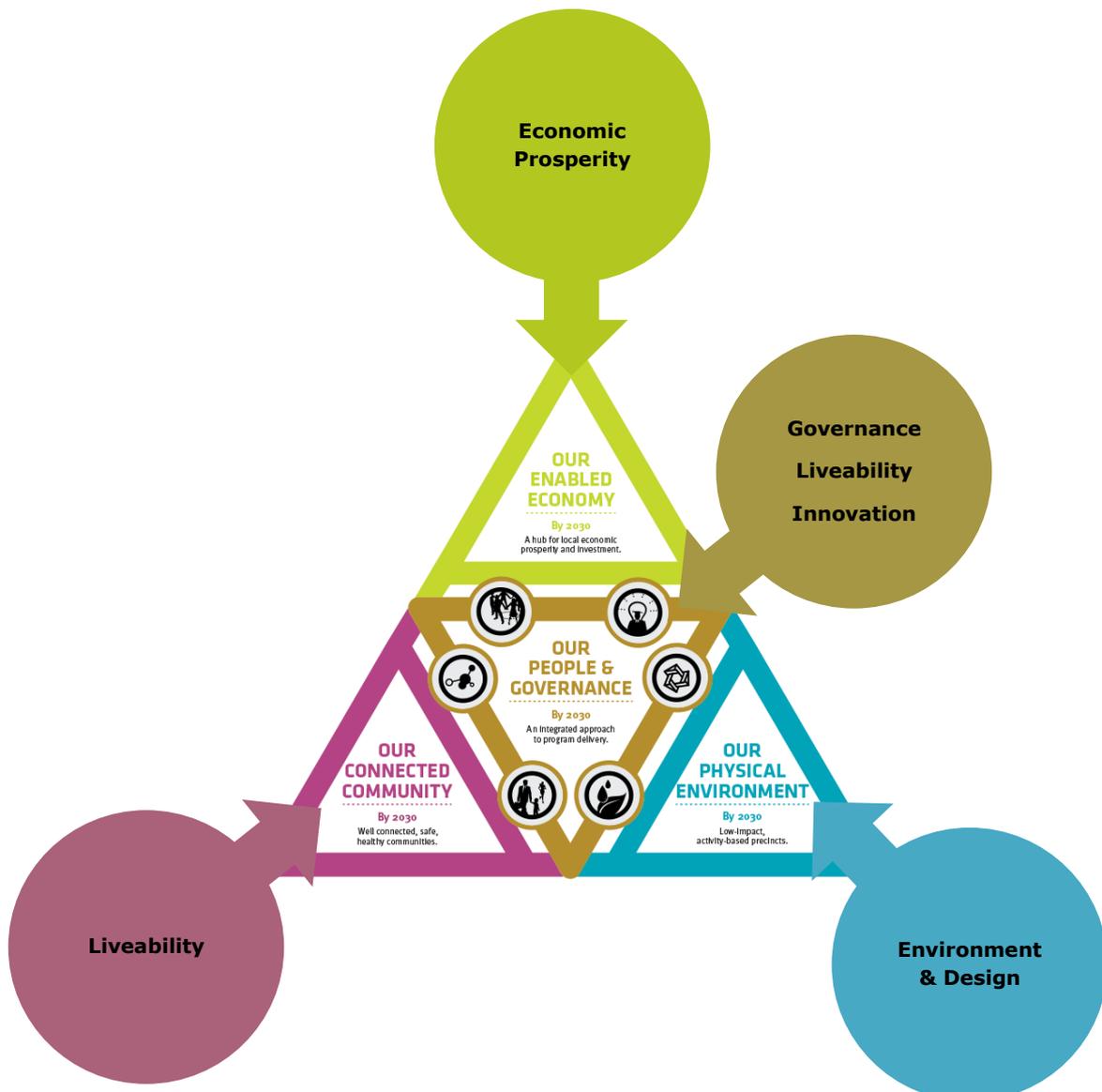
3.6 INNOVATION

Aims to recognise the implementation of innovative practices, processes and strategies that promote sustainability in the built environment. The award of credits is at the discretion of the GBCA.

Key elements include:

- innovative strategies and technologies
- market transformation
- improving on Green Star benchmarks
- Green Star innovation challenges
- sustainable design initiatives.

3.7 PF&D'S SUSTAINABILITY FRAMEWORK AND GREEN STAR COMMUNITIES



4 GREEN STAR PROCESS

Prospective project teams should make an early evaluation of the likelihood that the project they are assessing for their involvement could have an impact on Curtin University's 5-Star Green Star – Communities rating and therefore to what extent they need to actively consider and include the credit criteria into the project.

For projects that may have a significant impact on Curtin's rating, project teams might also consider undertaking their own rating, in the Green Star – Interiors or the Green Star – Design & As Built categories.

It is recommended that project teams should make early contact with the Curtin PF&D Planning team to assist them in making the appropriate evaluation as to the level and significance of the project's involvement with Green Star requirements. Some projects may have minimal impact on Curtin's rating, while others may offer opportunities to not only maintain but also to enhance the rating. The PF&D Planning team can provide assessment services to the proponent before design activity has commenced.

The first point of contact should be:

Properties, Facilities and Development
Curtin University

Email | sustainability@curtin.edu.au

5 REFERENCES

- 000339 PDG Green Star – Communities Pilot v0.1 Compliance Checklist
- Greater Curtin Academic Heart – Development Guidelines
- Greater Curtin Stage 1 Development Guidelines
- Universal Design Guideline – Built Form
- Integrated Transport & Movement Plan
- Engineering & Public Realm Guidelines