Trinity Grammar School Renewal

Alternative ESD Certification Process

Bloompark

Job No:	1029115
Doc Ref:	RPT-SY-001
Revision:	B
Revision Date:	01 April 2022

Project title	Trinity Grammar School Renewal	**Job Number**
Report title	Alternative ESD Certification Process	1029115

Document Revision History

Revision Ref	Issue Date	Purpose of issue / description of revision
A	22 February 2022	Issued for information
B	1 April 2022	Update following DPIE meeting on 31/3/2022

Document Validation (latest issue)

1/04/2022

X Zoe Kwak

Principal author

Signed by: Kwak, Zoe

1/04/2022

X

Checked by

Signed by: Clark, David

1/04/2022

X

Verified by

Signed by: Clark, David

Contents

Purpose of Report

The Development Consent SSD 10371 issued by NSW Department of Planning Industry & Environment (DPIE) dated 24 September 2021 contains the following clauses related to ESD certification:

D9. Prior to the commencement of any construction, unless otherwise agreed by the Planning Secretary, the Applicant must demonstrate that ESD is being achieved by either:

- *(a) registering for a minimum 4-star Green Star rating with the Green Building Council Australia and submit evidence of registration to the Certifier; or*
- *(b) seeking approval from the Planning Secretary for an alternative certification process.*

G16. Unless otherwise agreed by the Planning Secretary, within six months of commencement of operation, Green Star certification must be obtained demonstrating the development achieves a minimum 4-star Green Star Design & As Built rating. If required to be obtained, evidence of the certification must be provided to the Certifier and the Planning Secretary. If an alternative certification process has been agreed to by the Planning Secretary under condition D9, evidence of compliance of implementation must be provided to the Planning Secretary and Certifier.

This report sets out the proposed alternative ESD certification process to comply with conditions D9 and G16.

The process will cover the whole renewal project (stages 1 to 5) and documentation providing evidence of compliance (clause G16) will be issued for for the whole project as a single submission. Each stage will not be certified separately.

Green Star Design & As-Built Certification

Green Star, developed and administered by the Green Building Council of Australia (GBCA), is a set of rating tools that deliver independent verification of sustainable outcomes throughout the life cycle of the built environment.

Green Star - Design & As Built v1.3 rating tool assesses the sustainability outcomes from the design and construction of new buildings or major refurbishments and rates them on a scale from 4 (Best Practice) to 6 Stars (World Leadership). The tool includes requirements across the following nine holistic impact categories:

Management Aims to encourage and reward the adoption of practices and processes that support best practice sustainability outcomes throughout the different phases of a project's design, construction and ongoing operation.

Indoor Environment Quality Aims to encourage and reward initiatives that enhance the comfort and well-being of occupants. The credits within this category address issues such as air quality, thermal comfort and acoustic comfort.

Energy Aims to reward projects that are designed and constructed to reduce overall greenhouse emissions from operations by addressing energy demand reduction, use efficiency and generation from alternative sources.

Transport Aims to reward projects that facilitate a reduction on the dependency of private car use as an important means of reducing overall greenhouse gas emissions, as well as to encourage the provision of alternative forms of transportation.

Water Aims to encourage and reward initiatives that reduce the consumption of potable water through measures such as the incorporation of water efficient fixtures and building systems and water re-use.

Materials Aims to address the consumption of resources for the project, by encouraging the selection of low-impact materials.

Land Use and Ecology Aims to reduce the negative impacts on sites' ecological value as a result of urban development and reward projects that minimise harm and enhance the quality of local ecology.

Emissions Aims to assess the environmental impacts of 'point source' pollution generated by projects and reduce their effects on the atmosphere, watercourse and native animals.

Innovation Aims to recognise the implementation of innovative practices, processes and strategies that promote sustainability in the built environment.

Each category contains a number of different credits, and each credit is worth 1 or more points. The rating tool includes a total of 110 points including 10 points in the Innovation category.

To obtain certification of a Green Star rating by the GBCA the project must first be registered. After practical completion, a comprehensive submission is made to the GBCA demonstrating how the targeted credits have been achieved with supporting design and as-built documentation. This is reviewed by the GBCA, and if compliance with the Green Star Submission Guidelines is demonstrated, the points are awarded, and the project achieves the level of certification based on the points achieved.

To achieve a 4 star rating a minimum of 45 points must be awarded.

This project is not pursuing formal certification using Green Star.

Alternative ESD Certification Methodology

The project will be designed and constructed to a similar level of ambition to a 4 Star Green Star Design & As Built v1.3 rating. In accordance with Clause D9 of SSD-10371 the project is seeking approval from the Planning Secretary for an alternative certification process.

3.1 Alternative ESD Certification Framework

The proposed alternative ESD certification approach to meet DPIE requirements references the benchmarks established in the Green Star rating tool. The alternative ESD certification process is summarised in Figure 1, and includes as follows:

- Establishing an ESD Certification Framework and benchmark for the project with a similar sustainability performance to that of a 4-Star Green Star Design & As-Built rating.
- Agreeing on the design, construction, and operational initiatives to achieve the benchmark with the project team and then tracking compliance throughout design and construction.
- Obtaining ESD compliance statements from consultants and contractors confirming that the design and/or construction for which they are responsible complies with the agreed benchmark and framework requirements. These will be signed by authorised and appropriately qualified representatives of each company.
- Preparing an ESD Compliance Report confirming that the design and construction of the project has achieved the required ESD benchmark set within the framework, with clear descriptions of all the ESD initiatives, how they contribute to the benchmark, and reference to where the supporting evidence is available.

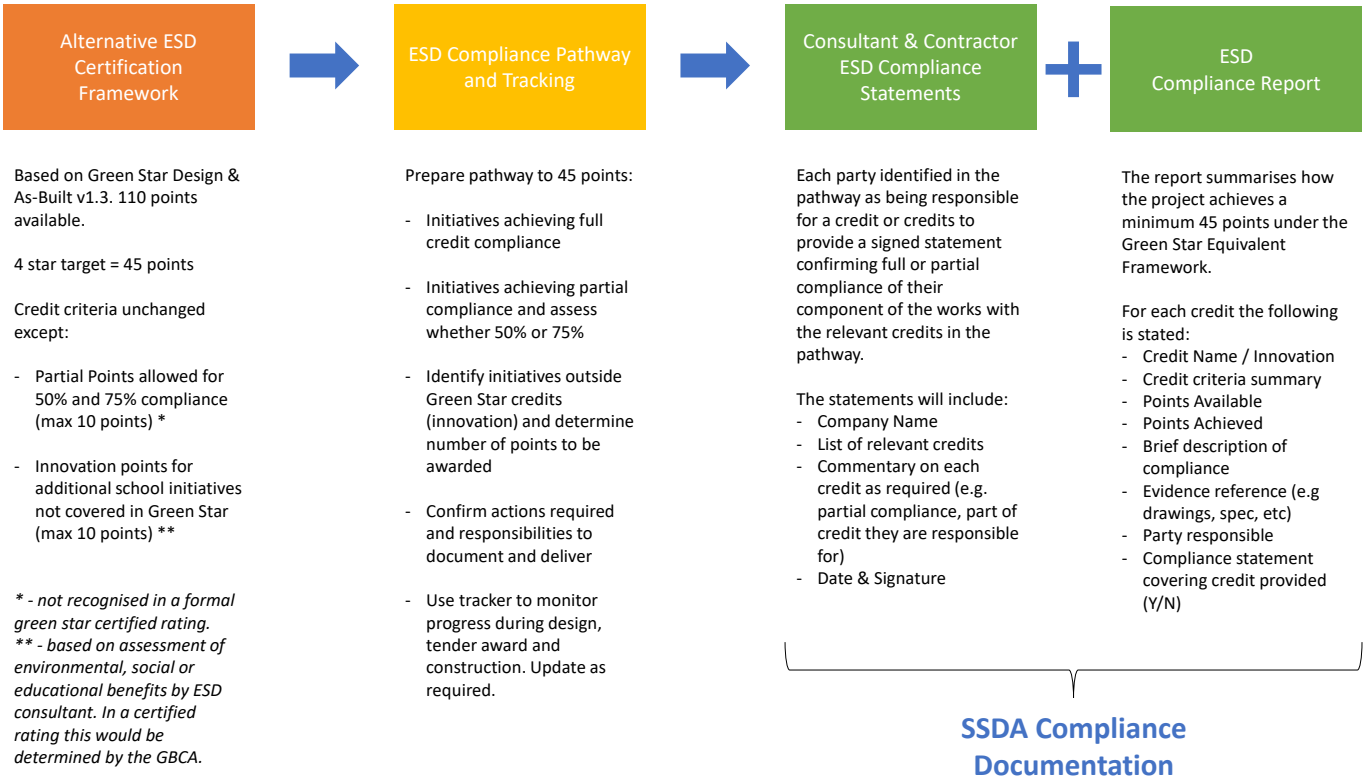

Figure 1 Alternative ESD Certification approach

The final ESD Compliance Report will be submitted in accordance with SSD clause G16 to the department and certifier as evidence of compliance with the ESD conditions.

3.2 Differences to a Certified Green Star Rating

The key differences between the alternative ESD certification approach and a formal Green Star certification are:

- The evidence is not reviewed by a third party assessor. Consequently no formal certification or public claims of Green Star performance will be made.
- The signed certification of ESD compliance for individual credits is provided by the relevant design consultant and/or contractor. This is the same process that is used to confirm compliance that the project has been designed and constructed in accordance with Australian Standards, the Building Code of Australia and other relevant legislation.
- The school does not require a formal Green Star rating for marketing, branding, attracting students or attracting investors. The alternative ESD certification approach provides an appropriate assurance of sustainability compliance while allowing more of the project budget to be spent on learning facilities for the students.
- The alternative ESD certification approach provides flexibility to recognise the broader range of sustainability initiatives specific to schools than through the formal Green Star innovation route. The innovation points awarded in the alternative approach are determined by the ESD Consultant using their professional judgment based on comparison with the level of ambition elsewhere in the framework. The justification for the points adopted will be described in the ESD Compliance Report.
- The alternative ESD certification approach allows the use of partial points to recognise sustainability initiatives that make a positive contribution to the project, but which may not fully comply with Green Star credit thresholds. For example, if daylight credit criteria for 1 point was 40% of floor area, and the project delivered 30%, then instead of no points being awarded in a formal rating for daylight, under the alternative approach 0.75 points would be awarded.

The proposed alternative ESD certification approach provides an appropriate level of rigour and quality assurance for planning compliance purposes. It has been tailored to suit a NSW school project, the applicant's capabilities and core business (education), and the skills and capability of the local supply chain (contractors and suppliers).

In adopting the alternative ESD Certification approach no reference to Green Star or Green Star Equivalent will be made in any public documents.

Precedent for partial points

The approach to partial 'green star' points formed a core part of the alternative ESD certification process developed by Cundall for public schools that were designed in accordance with Schools Infrastructure NSW's Educational Facilities Standards and Guidelines (EFSG). This was formally agreed between Schools Infrastructure NSW and DPIE in 2021 and has since been used on a number of school projects.

Preliminary ESD Certification Pathway

The ESD Certification Framework will inform the design, construction, and operational stages of the project. An integrated design approach will be adopted for the incorporation of ESD measures, with input from the ESD consultant from early planning through to construction phases.

A preliminary ESD Pathway for the project has been prepared for the combined Stages 1, 2 and 3 of the project. The enabling stages, Stage 1 (maintenance building) and Stage 2 (car park), will contribute to achieving the project pathway points shown in the table below, but are not separately certified. Similarly, pathways for Stages 4 and 5 will be developed as the design develops. Stages 1 to 5, when combined together, form the overall renewal project certification. As the design develops, the targeted points may be modified, however, sufficient sustainability initiatives and processes will be incorporated into the design and construction of the project to achieve a minimum score of 45 points.

Credit Code	Credit Category	Renewal Project Pathway	Stage 1	Stage 2	Stage 3
	Management				
1	Green Star Accredited Professional	1	1	1	1
2	Commissioning and Tuning	3	3	3	3
3	Adaptation and Resilience	-			
4	Building Information	1			1
5	Commitment to Performance	2			2
6	Metering and Monitoring	1			1
7	Responsible Building Practices	1	1	1	
8	Operational Waste	1			1
	Indoor Environment Quality				
9	Indoor Air Quality	2	1		2
10	Acoustic Comfort	1			1
11	Lighting Comfort	1	1		1
12	Visual Comfort	-			
13	Indoor Pollutants	2	2	2	2
14	Thermal Comfort	-			
	Energy				
15	Greenhouse Gas Emissions	5	4	2	5
16	Peak Electricity Demand Reduction	1			1
	Transport				
17	Sustainable Transport	8	8	8	8
	Water				
18	Potable Water	5	4	1	5
	Materials				
19	Life Cycle Impacts	5	3	3	5
20	Responsible Building Materials	2	2	2	2
21	Sustainable Products	-			
22	Construction and Demolition Waste	1	1	1	1
	Land Use & Ecology				
23	Ecological Value	1		1	1
24	Sustainable Sites	1	1	1	1
25	Heat Island Effect	1	1		1
	Emissions				
26	Stormwater	2	2	2	2
27	Light Pollution	1	1	1	1
28	Microbial Control	1	1		1
29	Refrigerant Impacts	-			
	Innovation				
30	Innovation Challenge	2	1	1	2
	Total	**52**	**38**	**30**	**52**

Cundall Johnston & Partners PTY
Level 6, 99 Mount Street, North Sydney, NSW, 2060
T: +61 (02) 8424 7000
Asia Australia Europe MENA UK and Ireland
www.cundall.com