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Date: 18 March 2021

Jim Betts
Planning Secretary
Department of Planning, Industry and Environment
GPO Box 39
Sydney NSW 2001

Dear Jim Betts,

RE: St Matthews Catholic College (SSD 9872): Submission of revised alternative ESD certification process – Condition C22(b) — Response to Comments

I refer to the St Matthews Catholic College State Significant Development approved on the 16 December 2020.

In accordance with SSD 9872 Development Consent Condition C22, a request for the approval of an alternative ESD certification process was submitted to the Department of Planning, Industry and Environment (DPIE) on 4 February 2021 (SSD-9872-PA-3). Subsequent to the submission of the alternative ESD certification process, an extension was requested to allow construction to commence while the proposed certification process was reviewed by DPIE (SSD-9872-PA-5). Following review of the alternative ESD certification process proposed, DPIE issued an RFI 5 March 2021.

Following review of the RFI, the alternative ESD certification process submission has been revised to detail the certification process and how the ESD consultant will integrate with the project team.

- Attachment 1 – Revised Alternative ESD Certification Process (Revision C)
- Attachment 2 – Response to C22 AltESDCertification-DPIE_Review Table

If there are further comments please don't hesitate to contact me.

Kind Regards,

Isaac Conway
Assistant Project Manager

Best for Project

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Attachment 1 – Revised Alternative ESD Certification Process (Revision C)

St Matthew's Catholic School Mudgee - Secondary College

Submission for an alternative ESD certification process

Catholic Education Diocese of Bathurst

By Cundall

Level 1, 48 Alfred Street

Milsons Point, NSW 2061

Ph (02) 8424 7000

Fax (02) 8424 7099

Please contact: Julian Bott

Project title	St Matthew's Catholic School Mudgee - Secondary College
Report title	Submission for an alternative ESD certification process

Document Revision History

Revision Ref	Issue Date	Purpose of issue / description of revision
A	21 April 2020	For SSDA
B	02 February 2021	An alternative ESD certification process
C	18 March 2021	An alternative ESD certification process (updated section 4.3 and 4.4)

Document Validation (latest issue)

18/03/2021	18/03/2021	18/03/2021
X	X	X
Principal author	Checked by	Verified by

Executive Summary

DPIE Conditions

The Design and Construction of the new St Matthews Catholic School Mudgee – Secondary College will deliver a range of environmental and social sustainability outcomes in accordance with the St Matthews Catholic School values, the ESD requirements of the Planning Secretary's Environmental Assessment Requirements SSD-9872 dated 01/03/2019, and the NSW Government Department of Planning, Industry and Environment (DPIE) Conditions dated 16/12/2020.

The Development Consent from DPIE issued 16/12/2020 states the following ESD requirements:

- ***C22.*** *Prior to the commencement of 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 submitting evidence of registration to the Certifier, or
  (b) seeking approval from the Planning Secretary for an alternative certification process.

- ***F14.*** *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 C22, evidence of compliance of implementation must be provided to the Planning Secretary and Certifier.*

For the St Matthews Catholic School Mudgee - Secondary College project approval for an alternative certification process is being sought from the Planning Secretary under condition C22 (b).

Alternative ESD Compliance Approach

This report outlines the proposed alternative ESD certification approach to meet DPIE requirements ensuring compliance is being tracked and verified throughout the project execution. The approach references the benchmarks established in the Green Star rating tool to demonstrate equivalence to the sustainability performance of a 4 Star Green Star certified building.

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 track 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 requirements of the ESD Certification Framework
- 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.

The final ESD Compliance Report will be submitted in accordance with Consent Condition F14 to the department and certifier as evidence of compliance with the consent conditions.

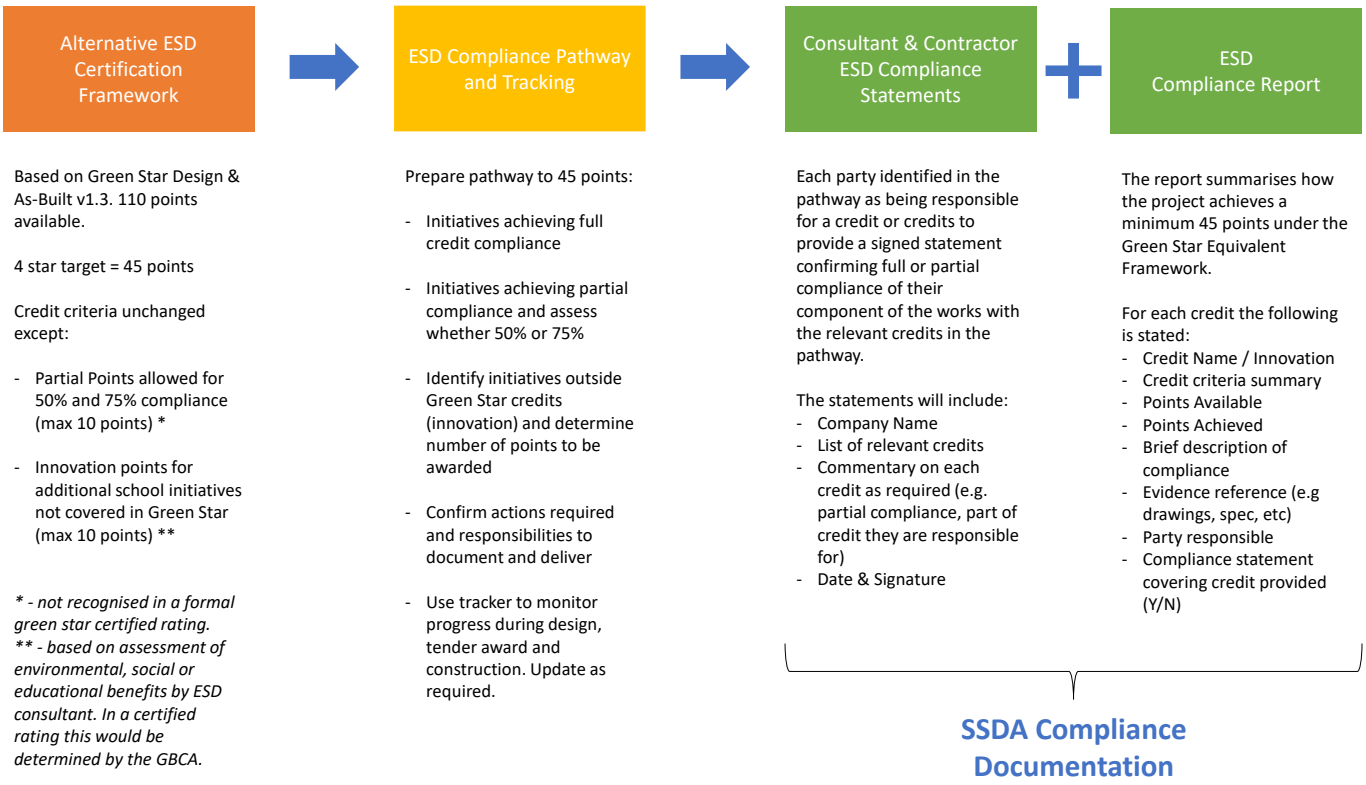

Figure 1 Alternative ESD Certification approach

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 a high-level of rigour and quality assurance similar to a Green Star Design & As-Built rating. Its advantage is that it has been tailored to suit a regional NSW school project, the applicant's capabilities and core business (education), and the skills and capability of the local supply chain (contractors and suppliers).

Examples of the tailored approach integrated into the alternative ESD compliance framework include:

- Emphasis on the learning environment. For example, multi-use/multidisciplinary flexible learning spaces means less specialised classrooms are required to be built (capital cost and impact on the environment) and run (i.e. classrooms are not underutilised with energy consumed in unoccupied spaces). Less movement between classrooms improves building efficiency.
- Designed to aid education about sustainability and the impact of climate change such as flooding and drought.
- Adopts a different approach to transport evaluation – the transport requirements for a regional school are very different from the transport assessment of a CBD commercial building.

Alignment with SSDA Sustainability Initiatives

The proposed alternative ESD certification approach also aligns with and supports the Sustainability Framework that was established for the project at the early design stage and submitted with the SSDA documentation in April 2020. The framework ensured that a wide range of ESD initiatives was identified and embedded into the concept design of the school, including:

- The passive design of buildings – orientation, glazing ratios, shading, building fabric performance
- Energy-efficient building systems and controls
- Renewable energy with integrated photovoltaic panels
- Rainwater harvesting and re-use on site
- Water-efficient fixtures and fittings
- Design to maximise daylight and views to nature
- Landscaping design to support indigenous flora, fauna and biodiversity
- Bicycle parking and showers to encourage an alternative to cars
- Aspects of sustainable living, and local culture and heritage incorporated into the new building design and external spaces
- Building services and infrastructure designed to respond to climate change scenarios
- Environmental Management Plan to be implemented for all construction works

DPIE Stages and Compliance

The proposed alternative ESD certification approach will align with the DPIE requirements, ensuring compliance is being tracked and verified at each stage of the project execution. Table 1 summarises the Project Response to DPIE's stages and ESD requirements. Further details on verification process at each of the below stages are provided in Section 4.4 of this report.

Table 1 Project response to DIPE ESD requirements

DPIE Stage	DPIE ESD requirement	Response
Part B Prior To The Issue of a Construction Certificate	-	Issued SSDA ESD Report dated 21st April 2020 describing Sustainability Framework, and proposed sustainability initiatives.
Part C Prior To Commencement Of Construction	C22 (b) - seeking approval from the Planning Secretary for an alternative certification process	Submission of an alternative ESD certification framework and process (this Report)
Part D During Construction	-	Compliance with the agreed ESD initiatives in the Alternative Certification Approach will be monitored and recorded by the project team
Part E Prior To The Issue Of Occupation Certificate / Commencement Of Operation	-	Review of design documentation compliance with the ESD certification framework and targets and issuing an ESD Design Compliance Report by the ESD Consultant
Part F Post Occupation	F14 - evidence of compliance and implementation with the alternative certification process to be provided	Review of as-built compliance documentation with the ESD certification framework and targets and issuing an ESD As-Built Compliance Report by the ESD Consultant to the Planning Secretary and Certifier

The proposed alternative ESD certification approach responds to conditions C22 and F14 of the Development Consent from DPIE issued on 16th December 2020. It provides a similar level of sustainability performance to a 4 Star Green Star Design & As-Built rating, includes a rigorous and thorough checking/confirmation process, and is suitable for a new regional school such as St Matthew's Catholic School Mudgee - Secondary College.

Contents

Figure 2 St Matthews Catholic School Mudgee – Secondary College - Artist impression of the project

1.0 Project Overview

Introduction

St Matthews Catholic School is an existing Kindergarten to Year 12 School located in the heart of Mudgee CBD. The school has outgrown the existing school campus and is considered inadequate in its capacity to cater for the anticipated enrolment growth, necessary facilities and open space.

The new 12.14ha site is located on the corner of Broadhead and Bruce Roads in South Mudgee. This is a relatively flat Greenfields site, which provides the opportunity for appropriate built and landscaped spaces to cater for the schools' aspirations.

This proposal is for the construction of a new Secondary school, (Years 7-12) component of the school, with the Primary school remaining at the existing Lewis Street site. Masterplanning includes for the provision of future stages to allow capacity and flexibility for future direction.

The school has identified their vision as: "*At St Matthews Catholic School we believe that all in our community can learn at high levels in a Christ-centred, engaging, collaborative, and nurturing environment*".

Figure 3 Project location

Project Description

The new school will be a multi-purpose secondary education facility within the Mudgee Region that meets future demands for the developing region. It will be known as St Matthew's Catholic School Mudgee – Secondary College and will cater for 680 secondary school students (4-Stream Year 7-12) and comprise of a cluster of five low-rise school buildings (1-2 storeys) including:

- Block A - Professional Hub (office and administration)
- Block B - Spiritual Hub (Chapel)
- Block C - Community Hub (Multi-purpose hall, Music/Dance Studio and canteen)
- Block D - STEM Research Hub (teaching spaces)
- Block E - Knowledge and Learning Hubs (General Teaching spaces)
- Yarning Circle (Outdoor learning area)
- Outdoor Student Assembly Area and COLA

- Student free play area
- Staff and student amenities
- Associated site landscaping and public domain improvements
- On-site parking and access arrangements off Bruce Road, including:
  - On-grade car park for staff, students and visitors (82 spaces)
  - A 25 bay student drop-off and pick-up area
  - A 3-bay bus drop-off and layover area
  - Bus turning area and servicing access
  - Dedicated separate driveway for service vehicles
  - Bicycle parking for 36 bicycles
- Associated earthworks, civil works, perimeter roadworks, fencing, services and utilities connections and augmentation, including:
  - Roadworks to Broadhead Road and Bruce Road to the full extent of the site frontages
  - Roadworks to the Broadhead Road and Bruce Road intersection to cater for bus movements
  - Footpath along the site frontage of Broadhead Road and suitable pedestrian crossing to connect to existing footpath.
  - Stormwater infrastructure upgrades adjacent to and within the site, including new culverts and drains, levee, and bioswale.
  - Connection to existing sewer line within the site
  - Electrical and water connections into the site

Figure 4 Proposed Site Plan

2.0 Sustainability Overview

2.1 Overview

This section provides context for the Sustainability Framework and Initiatives described in Section 3.0. The framework and initiatives are consistent with national best practice sustainable building principles in schools.

The following principles and initiatives were reviewed and are included in the Sustainability Framework for the St Matthews Catholic School Mudgee – Secondary College development:

- St Matthews Catholic School Mudgee Vision and Mission
- National Construction Code 2019 Building Code of Australia
- Planning Secretary's Environmental Assessment Requirements (SEARs) – SSD-9872 dated 1 March 2019
- One Planet Living principles
- United Nations Sustainable Development Goals
- Government Architect NSW - Environmental Design Guide for Schools (GANSW)
- Green Star Design & As Built v1.3 alternative assessment

2.2 School Vision and Mission

The two fundamental values of St Matthews Catholic School are 'Truth' and 'Excellence', which forms the basis of the school motto: "Truth and Excellence will Prevail". The School vision and mission are driven from these fundamental beliefs.

St Matthews Catholic School vision is a belief that all in our community can grow in their learning at high levels in a Christ-centred, engaging, collaborative, and nurturing environment. The School mission is developed from the collective commitments as a school community to ensure that school values and vision are visible in 'all we say and do'.

2.3 National Construction Code 2019 Building Code of Australia

The National Construction Code (NCC) details the minimum necessary requirements for safety, health, amenity and sustainability in the design and construction of new buildings throughout Australia. The Building Code of Australia (BCA) forms part of the NCC. Section J of Volume 1 of the BCA sets minimum energy performance requirements for all new developments, including the performance of building fabric, glazing thermal performance, air-conditioning, ventilation, lighting, power and hot water.

The proposed St Matthew's Catholic School design (issued 20.03.2020 by Alleanza Architecture) has been assessed in line with the NCC 2019 Section J1 Deemed-To-Satisfy (DTS) approach. Minimum thermal performance requirements for building fabrics were outlined in NCC 2019 Section J Fabric Report (issued 08.04.2020 by Cundall).

2.4 Planning Secretary's Environmental Assessment Requirements (SEARs)

The Planning Secretary's Environmental Assessment Requirements (SEARs) - SSD-9872 dated 1 March 2019 contains the following requirements for ESD. The response to these was set out in the ESD Report for SSDA dated 21 April 2020.

Table 2SEARs - SSD-9872 dated 1 March 2019

Secretary's Environmental Assessment Requirements	Response
Detail how ESD Principles (as defined in clause 7(4) of Schedule 2 of the EPA Regulation) will be incorporated in the design and ongoing operation phases of the development.	Complies The response was set out in the ESD Report for SSDA dated 21st April 2020
Include a framework for how the future development will be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and reduce ecological impact. This should be based on a materiality assessment and include: ▪ waste reduction design measures ▪ future-proofing ▪ use of sustainable and low-carbon materials ▪ energy and water-efficient design (including water sensitive urban design) ▪ and technology and use of renewable energy	Refer Alternative ESD Certification Approach 3.0 and 4.0
Include preliminary consideration of building performance and mitigation of climate change, including consideration of Green Star Performance.	Incorporated into design The response was set out in the ESD Report for SSDA dated 21st April 2020
~~Include details of the initiatives that would enable the future development to achieve a minimum of 4 Star Green Star rating in accordance with the rating system of the Green Building Council Australia.~~ Condition amended by DPIE - refer below	Refer Alternative ESD Certification Approach 4.0
Provide a statement regarding how the design of the future development is responsive to the CSIRO projected impacts of climate change, specifically: ▪ hotter days and more frequent heatwave events ▪ extended drought periods ▪ more extreme rainfall events ▪ gustier wind conditions ▪ how these will inform landscape design, material selection and social equity aspects (respite/shelter areas). Relevant Policies and Guidelines: NSW and ACT Government Regional Climate Modelling (NARCliM) climate change projections.	Incorporated into the design of the building fabric and building services The response was set out in the ESD Report for SSDA dated 21st April 2020

Development Consent from DPIE issued 16/12/2020 - Ecologically Sustainable Development

C22. Prior to the commencement of 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 submitting evidence of registration to the Certifier; or

(b) seeking approval from the Planning Secretary for an alternative certification process.

On this project we are seeking approval for option (b) - refer to Section 4.0 of this report.

2.5 One Planet Living Principles

One Planet Living, developed by BioRegional and WWF, is a global initiative based on ten guiding principles of sustainability: health and happiness, equity and local economy, culture and community, land and nature, sustainable water, local and sustainable food, travel and transport, materials and products, zero waste, and zero carbon energy. Due to this sustainable model, BioRegional has achieved worldwide acclaim and is one of the most globally respected environmental charities.

One Planet Living is unlike formal prescriptive certification systems, as it is flexible in implementation, and much wider in scope. It was adapted as a baseline for establishing a sustainability framework for the St Matthews Catholic School Mudgee – Secondary College new development. Figure 5 oulines the 10 impact categories that the sustainability framework is built on.

Health and happiness	Encouraging active, social, meaningful lives to promote good health and wellbeing
Equity and local economy	Creating safe, equitable places to live and work which support local prosperity and international fair trade
Culture and community	Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living
Land and nature	Protecting and restoring land for the benefit of people and wildlife
Sustainable water	Using water efficiently, protecting local water resources and reducing flooding and drought
Local and sustainable food	Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein
Travel and transport	Reducing the need to travel, encouraging walking, cycling and low carbon transport
Materials and products	Using materials from sustainable sources and promoting products which help people reduce consumption.
Zero waste	Reducing consumption, re-using and recycling to achieve zero waste and zero pollution
Zero carbon energy	Making buildings and manufacturing energy efficient and supplying all energy with renewables

Figure 5 One Planet Living Impact Categories

2.6 UN Sustainable Development Goals

The Sustainable Development Goals (SDGs) were established at the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012. The objective was to produce a set of universal goals that meet the urgent environmental, political and economic challenges facing our world. The SDGs replace the Millennium Development Goals (MDGs), which started a global effort in 2000 to tackle the indignity of poverty.

SDGs are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. These 17 Goals include areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. The goals are interconnected – often the key to success on one will involve tackling issues more commonly associated with another.

Alignment with 13 out of 17 UN Sustainable Development Goals shown in Figure 6 below were identified within the framework for the St Matthews Catholic School Mudgee – Secondary College new development.

Figure 6 UN Sustainable Development Goals

2.7 Government Architect New South Wales Design Guide for Schools

The Design Guide for Schools was prepared by the NSW Government Architect (GANSW) in 2018 to promote and champion good design processes and outcomes for schools across NSW, to deliver schools that respond positively to their physical, social and environmental context, and to support the delivery of excellent learning environments. A key principle is sustainable, efficient and durable design:

- Good design combines positive environmental, social and economic outcomes. Schools and school buildings should be designed to minimise the consumption of energy, water and natural resources and reduce waste and encourage recycling.
- Schools should be designed to be durable, resilient and adaptable, enabling them to evolve over time to meet future requirements.

St Matthew's Catholic School Mudgee - Secondary College will align with the following design considerations set out in the guide:

- **Air** – by provision of good air quality that can improve student wellbeing
- **Comfort** – by designing good learning spaces comfortable for all staff, students and visitors
- **Light** – by providing an access to daylight that can minimise electricity use
- **Noise** – by providing appropriate acoustic conditions in learning spaces
- **Water** – by water efficiency measures and promoting awareness of the importance of water conservation
- **Landscape** – by promoting biodiversity through caring for native, local ecosystem
- **Materials** – by using durable, robust materials that last a long time

2.8 Sustainability Framework

Table 2 provides a holistic Sustainability Framework for the St Matthews Catholic School Mudgee – Secondary College development:

Table 3 Sustainability Framework

Impact		Objective	Alignment with UN SDGs	Green Star Categories	SSDA requirements *(and GANSW Design Guide)*
	Zero Carbon Energy	Making buildings and infrastructure energy efficient and supplying all energy with renewables.	7 AFFORDABLE AND CLEAN ENERGY; 13 CLIMATE ACTION	• Energy	• energy efficient design • use of renewable energy
	Health & Wellbeing	Encouraging active, social, meaningful lives and providing the buildings, infrastructure and spaces to support good health and wellbeing for all ages.	3 GOOD HEALTH AND WELL-BEING	• Indoor Environment Quality	• *Air (GANSW)* • *Comfort (GANSW)* • *Light (GANSW)* • *Noise (GANSW)*
	Sustainable Water	Using water efficiently, protecting local water resources and reducing flooding, drought and water pollution.	6 CLEAN WATER AND SANITATION; 15 LIFE ON LAND	• Water	• water efficient design (including water sensitive urban design) • *Water (GANSW)*
	Materials & Supply Chain	Using materials from sustainable sources, applying circular economy principles and prioritising products with transparent, ethical supply chains.	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	• Materials	• use of sustainable and low-carbon materials • *Materials (GANSW)*
	Zero Waste	Reducing consumption and re-using and recycling to work towards zero waste to landfill.	12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 14 LIFE BELOW WATER	• Management	• Waste reduction measures
	Land & Nature	Restore, preserve and protect land, biodiversity and natural capital for the benefit of people and wildlife.	15 LIFE ON LAND	• Land Use & Ecology	• Landscape (GANSW)
	Sustainable Food	Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein.	2 ZERO HUNGER; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION		
	Travel & Transport	Reducing the need to travel and encouraging walking, cycling and low carbon transport.	3 GOOD HEALTH AND WELL-BEING; 11 SUSTAINABLE CITIES AND COMMUNITIES	• Transport	
	Community & Culture	Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living.	11 SUSTAINABLE CITIES AND COMMUNITIES; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS		
	Equity & Economy	Creating safe, just and equitable places to live, work, learn & trade, and supporting local prosperity and fair trade.	8 GOOD JOBS AND ECONOMIC GROWTH; 10 REDUCED INEQUALITIES		
	Pollution	Minimising air, noise, land, water and night sky pollution.	3 GOOD HEALTH AND WELL-BEING; 11 SUSTAINABLE CITIES AND COMMUNITIES	• Emissions	
	Climate Risk & Adaptation	Applying practical actions to manage risks from climate impacts, protecting communities and strengthening the resilience of the local economy.	13 CLIMATE ACTION	• Management	• response to the CSIRO projected impacts of climate change

3.0 Sustainability Initiatives

The following initiatives outlined in Table 4 below have been integrated into the design of the project to minimise consumption of resources, especially energy and water, and ensure delivery of social and environmental sustainability outcomes.

Table 4 Sustainability Initiatives

Impact		Sustainability Initiatives
	Zero Carbon Energy	▪ Passive design including glazing area & type, shading and insulation to exceed minimum requirements in Section J of NCC 2019. ▪ Natural ventilation of teaching spaces via openable windows to reduce heating and cooling energy. ▪ LED lighting with occupancy sensors and a digital lighting control system. ▪ Energy efficiency of lighting and mechanical systems to be minimum 10% better than NCC 2019 deemed to satisfy requirements. ▪ Motion sensors or timer switches in classrooms and amenities (manual on, manual off, auto off strategy) to control lighting and A/C systems. ▪ IT/Equipment purchasing policy to include energy efficiency requirements. ▪ Photovoltaic panels will be installed on the campus as part of a site-wide strategy
	Health & Wellbeing	▪ External horizontal and vertical shading elements and single glazing to provide high-level of thermal comfort and protection from direct solar radiation. ▪ Design of building to maximise daylight and views out. ▪ Glare control through selected systems and devices, blinds, screen and fixed devices, where required. ▪ LED lighting to provide quality of light, with illumination of both vertical and horizontal surfaces, and dimming control to suit the tasks. ▪ Supplementary outside air to learning spaces to maintain low CO2 levels when windows are closed. ▪ Design for aural comfort in open plan learning environments through careful consideration of acoustics. ▪ Comfortable external spaces provided with air flow, shading, vegetation and reflective surfaces. ▪ All new paints, adhesives, sealants, floor finishes and furniture are low off-gassing (low on Volatile Organic Compounds, Formaldehyde, etc). ▪ CO_2 sensors and alarms in all teaching spaces. ▪ Additional water fountains to promote drinking water.
	Sustainable Water	▪ Low flow fixtures including sensor active taps. ▪ Water meters to main items of water consumption where practical. ▪ Rainwater collection from non-trafficable areas of roof as part of site-wide water collections strategy. ▪ On-site stormwater detention, landscaping and pollutant traps to reduce surface water run-off and ensure water leaving site is clean.

Impact		Sustainability Initiatives
	**Materials & Supply Chain**	▪ Reduce embodied carbon during construction through the specification of concrete with reduced Portland Cement content. ▪ Timber to be FSC or PEFC certified. ▪ Specify and procure where practical construction materials with high recycled content. ▪ Steel will be sourced from a Responsible Steel Maker. ▪ PVC Best Practice materials to be used across the project. ▪ Select material finishes that can be cleaned using cleaning products that are low toxicity and eco-label certified. ▪ Preference materials with environmental certifications. ▪ Increase transparency in the Supply Chain of construction materials to minimize risks of environmental impacts and modern slavery. ▪ Flexible and reconfigurable will be incorporated in designing classrooms and workspaces to reduce the frequency of future fit-outs and associated material consumption and waste. ▪ Suitable durability and protection measures and/or designed features/solutions will be used to prevent damage to vulnerable parts of the internal and external building and landscaping elements.
	**Zero Waste**	▪ Reuse or recycle demolition materials during construction works, where possible. ▪ Diverted demolition and construction waste from landfill, where possible. ▪ Areas for the collection of operational waste for recycling, composting and landfill. ▪ Material and waste storage spaces will be allocated to help eliminate single use plastics, particularly in food packaging (straws, bottles, cartons, films, cups, etc). ▪ Compost bins for organic waste ▪ An Operation Waste Management Plan will be prepared for the school
	**Land & Nature**	▪ Landscaping designed to support indigenous flora, fauna and biodiversity ▪ Landscaping and vegetation to provide shade and cooling.
	**Sustainable Food**	▪ Edible landscaping and herb gardens will be integrated into landscaping.
	**Travel & Transport**	▪ Safe access to the building will be provided for pedestrians and cyclists. ▪ Bicycle parking and showers will be provided for staff cycling to work. ▪ Lockers and bicycle parking will be provided for students.
	**Community & Culture**	▪ Aspects of sustainable living, and local culture and heritage will be incorporated into the new building design and external spaces. ▪ Heritage signage and art strategy will be created to highlight the history of the school.
	**Equity & Economy**	▪ A Procurement Policy will be prepared to support businesses and social enterprises consistent with the school's values, local suppliers, not-for-profit organisations and fair-trade suppliers. ▪ Layouts and external lighting to incorporate best practice safe by design principles including Crime Prevention Through Environmental Design (CPTED). ▪ The building will comply with best practice Disability Discrimination Act (DDA) requirements. ▪ The building will be designed to best practice CPTED principles. ▪ Opportunities for apprentices and trainees to be employed by contractors working on the project will be encouraged.

Impact		Sustainability Initiatives
	**Pollution**	▪ External lighting will be designed to minimize night-sky pollution. ▪ Artificial lighting will be on timeclocks and turned off at night if not required (internally and externally). ▪ An Environmental Management Plan will be implemented for all construction works. ▪ A Construction Noise and Vibration Management plan will be prepared. ▪ Screening of air conditioning and other plant is provided to reduce noise pollution.
	**Climate Risk & Adaptation**	▪ Services and infrastructure to be designed for +2°C and +4°C climate change scenarios. ▪ External shading, breezeways and vegetation to make external spaces more comfortable on extreme temperature days. ▪ Roof finishes will have high Solar Reflective Indexes (SRIs) – light colours – to reduce heat island effect.

4.0 Alternative ESD Certification Approach

4.1 DPIE conditions for ESD certification

The Design and Construction of the new St Matthews Catholic School Mudgee – Secondary College will deliver a range of environmental and social sustainability outcomes in accordance with the St Matthews Catholic School values, the ESD requirements of the Planning Secretary's Environmental Assessment Requirements SSD-9872 dated 01/03/2019, and the NSW Government Department of Planning, Industry and Environment (DPIE) Conditions dated 16/12/2020.

The Development Consent from DPIE issued 16th December 2020 state the following ESD requirements:

- ***C22.*** *Prior to the commencement of 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 submitting evidence of registration to the Certifier, or

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- ***F14.*** *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 C22, evidence of compliance of implementation must be provided to the Planning Secretary and Certifier.*

For the St Matthews Catholic School Mudgee - Secondary College project approval for an alternative certification process is being sought from the Planning Secretary under condition C22 (b).

4.2 Green Star Design & As-Built Certification Overview

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.

The GBCA's mission is to "*lead the sustainable transformation of the built environment*" and it aims to achieve this by encouraging practices that:

- Reduce the impact of climate change
- Enhance the health and quality of life of inhabitants and the sustainability of the built environment
- Restore and protect the planet's biodiversity and ecosystems
- Ensure the ongoing optimum operational performance of buildings
- Contribute to market transformation and a sustainable economy

Green Star - Design & As-Built scheme assesses the sustainability outcomes from the design and construction of new buildings or major refurbishments and rates them on a scale from 4 to 6 Stars, based on the number of points achieved, as follows:

- 45 – 59 points 4 Star rating Australian Best Practice
- 60 – 74 points 5 Star rating Australian Excellence
- 75+ points 6 Star rating World Leadership

Green Star Design & As Built rating 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.

4.3 Alternative ESD Certification Approach

The proposed alternative ESD certification approach to meet DPIE requirements will ensure compliance is being tracked and verified throughout the project execution. The approach references the benchmarks established in the Green Star rating tool to demonstrate equivalence to the sustainability performance of a 4 Star Green Star certified building.

The alternative ESD certification process is summarised in Figure 7, and includes as follows:

- Establishing an ESD benchmark and framework for the school that is similar to the sustainability performance 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 track 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 requirements of the ESD Certification Framework
- 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.

The final ESD Compliance Report will be submitted in accordance with Consent Condition F14 to the department and certifier as evidence of compliance with the consent conditions.

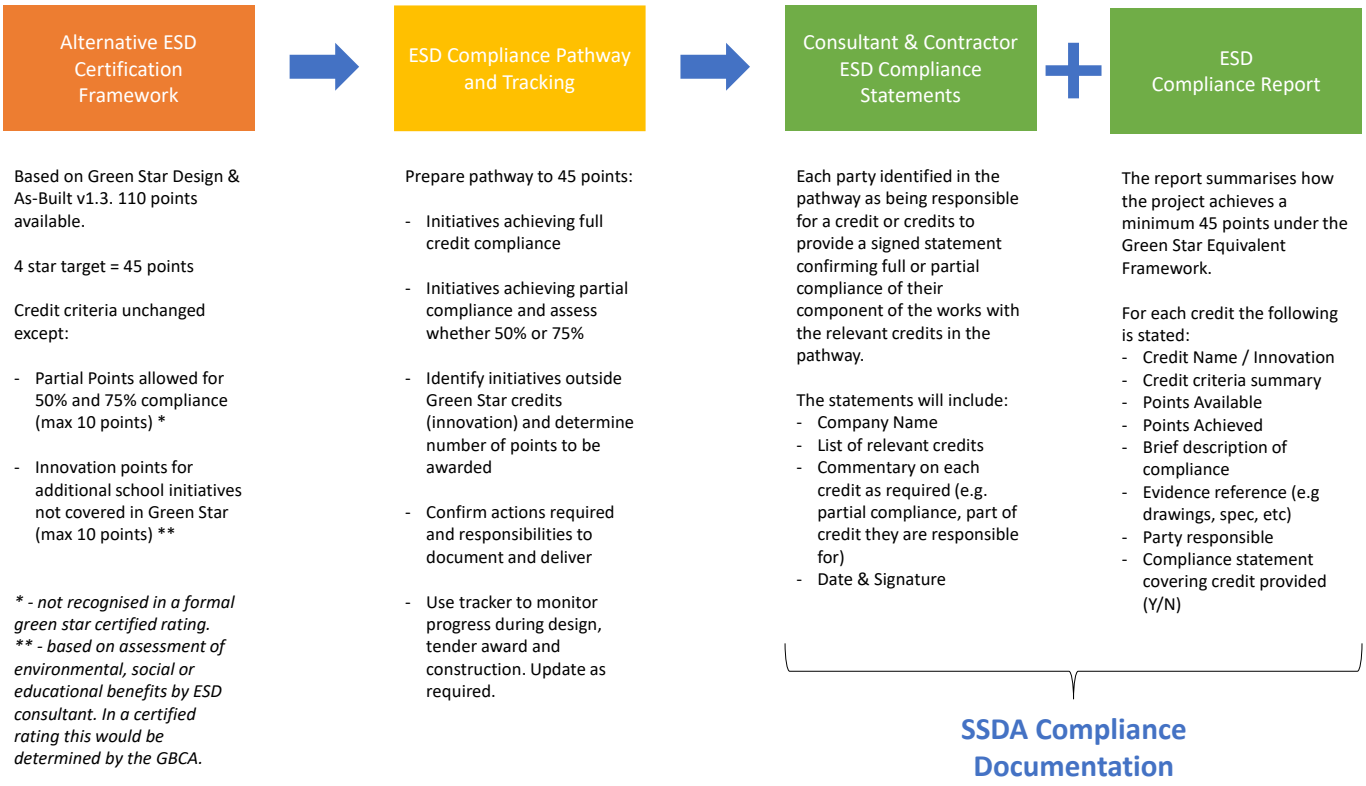

Figure 7 Alternative ESD Certification approach

4.3.1 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. Its advantage is that it has been tailored to suit a regional NSW school project, the applicant's capabilities and core business (education), and the skills and capability of the local supply chain (contractors and suppliers).

Examples of the tailored approach integrated into the alternative ESD compliance framework include:

- Emphasis on the learning environment. For example, multi-use/multidisciplinary flexible learning spaces means less specialised classrooms are required to be built (capital cost and impact on the environment) and run (i.e. classrooms are not underutilised with energy consumed in unoccupied spaces). Less movement between classrooms improves building efficiency.
- Designed to aid education about sustainability and the impact of climate change such as flooding and drought.
- Adopts a different approach to transport evaluation – the transport requirements for a regional school are very different from the transport assessment of a CBD commercial building.

The proposed alternative ESD certification approach also aligns with and supports the Sustainability Framework that was established for the project at the early design stage – refer to Section 2.8 and Section 3.0.

4.3.2 Green Star Trademark & Copyright

The use of Green Star equivalent has been prevalent in Australia for a number of years; however, this is technically in breach of Green Building Council of Australia (GBCA) trademark and copyright. The March 2020 Green Star in Focus business case has a page called "Beware Equivalency".[1] This notes that:

"Sometimes projects will make claims to standards of sustainability that are not independently verifiable or transparent. For example, these may include claims of 'Green Star equivalence' or that the project has been 'designed/ built to a Green Star standard'. These statements are false and misleading. There is no such thing as 'Green Star equivalent', or 'designed/built to a Green Star standard."

The Sustainable Procurement Guide: A practical guide for Commonwealth entities published in December 2020 by the Federal Government's Department of Agriculture, Water and the Environment also makes clear the risk of using Green Star equivalence on projects. It states that Green Star:[2]

"… is administered by the Green Building Council of Australia and certified as compliant with the ISO 9001:2015 – quality management system. Projects that claim to meet the requirements of Green Star but are not certified are potentially in breach of trademark rules and may be accused of 'greenwash'."

In adopting the Alternative ESD Certification approach it is therefore recommended no reference to Green Star or Green Star Equivalent is made in any public documents, including those lodged for planning, related to the project.

[1] Page 12 of *Green Star in focus: The business case*, accessible on https://gbca-web.s3.amazonaws.com/media/documents/gbca-green-star-in-focus-the-business-case-v1-r6-digital-spreads-reduced-size.pdf

[2] Page 56 of *The Sustainable Procurement Guide: A Practical guide for Commonwealth entities*, accessible on https://www.environment.gov.au/system/files/resources/856a1de0-4856-4408-a863-6ad5f6942887/files/sustainable-procurement-guide.pdf

4.4 DPIE Stages and Compliance

The proposed alternative ESD certification approach aligns with the DPIE requirements, ensuring compliance is being tracked and verified at each stage of the project execution. Table 5 summarises the Project Response to DPIE's stages and ESD requirements.

Table 5 Project response to DIPE ESD requirements

DPIE Stage	DPIE ESD requirement	Response
Part B Prior To The Issue of a Construction Certificate	-	Issued SSDA ESD Report dated 21st April 2020 describing Sustainability Framework, and proposed sustainability initiatives.
Part C Prior To Commencement Of Construction	C22 (b) - seeking approval from the Planning Secretary for an alternative certification process	Submission of an alternative ESD certification framework and process (this Report)
Part D During Construction	-	Compliance with the agreed ESD initiatives in the Alternative Certification Approach will be monitored and recorded by the project team through quarterly reports outlining the current compliance status for targeted initiatives. The quarterly reports will be submitted to the ESD consultant to allow for corrective input if the project needs assistance towards achieving 45 points.
Part E Prior To The Issue Of Occupation Certificate / Commencement Of Operation	-	Review of design documentation compliance with the ESD certification framework and targets and issuing an ESD Design Compliance Report by the ESD Consultant
Part F Post Occupation	F14 - evidence of compliance and implementation with the alternative certification process to be provided	Review of as-built compliance documentation with the ESD certification framework and targets and issuing an ESD As-Built Compliance Report by the ESD Consultant to the Planning Secretary and Certifier

ESD consultant will be engaged by the Catholic Education Diocese of Bathurst as an independent verifier to ensure the best ESD outcomes for the Client and the Project, with the following procedures in place:

Part D - During Construction

Compliance with the targeted ESD initiatives will be monitored and recorded by the project team throughout the construction stage as follows:

- **Quarterly reports** – will be developed by the Main Contractor identifying a current compliance status for targeted initiatives. The quarterly reports will be submitted to the ESD consultant to review and comment to allow for corrective input if the project needs assistance towards achieving 45 points.
- **High-risk items** – will be identified early in the process and addressed in details in quarterly reports by the Main Contractor providing an opportunity to the ESD Consultant to review and advise on the best approach to meet the requirements, where needed.

Part E - Prior To The Issue Of Occupation Certificate

Review of the documentation prepared by the design team for each of the design-related initiative will take place early in the construction stage to verify and confirm all design-related sustainability initiatives and allow for corrective action.

- **Design Compliance Report** – outlining evaluation of the design evidence will be prepared by the ESD Consultant for the design-related initiatives to confirm compliance or inform any additional design works, where required.

Part F - Post Occupation

Review of the as-built documentation prepared by the Main Contractor in line with the ESD certification framework and targets will take place and will form an ESD As-Built Compliance Report prepared by the ESD Consultant to the Planning Secretary and Certifier

- **As-built Compliance Report** – outlining evaluation of the as-built design and construction initiatives delivered in line with the Alternative ESD Certification Approach will be prepared by the ESD Consultant.

4.5 Preliminary ESD Certification Pathway

Using the alternative ESD Certification approach most of the credits will be achieved in full, meeting 100% of the credit aim. Partial compliance will be awarded when targeted initiatives meet most of the credit requirements (minimum 50% or 75%). Partial compliance is limited to a maximum of 10 credit points targeted.

The project is currently targeting 50 points in the design stage to enable a 5 point buffer for construction compliance. Table 56 provides a summary of the targeted initiatives and a level of compliance. Proposed credits might change, however, it will be ensured that a minimum 45 points are being targeted throughout the project execution.

Table 6 Alternative ESD framework pathway

Credit Code	Credit Category	Points Available	Points Targeted	Level of Compliance	Total Points Targeted
	Management				**11.75**
1	Green Star Accredited Professional	1	1	100%	1
2	Commissioning and Tuning	4	3	75%-100%	2.75
3	Adaptation and Resilience	2	2	50%	1
4	Building Information	1	1	100%	1
5	Commitment to Performance	2	2	100%	2
6	Metering and Monitoring	1	1	100%	1
7	Responsible Building Practices	2	2	100%	2
8	Operational Waste	1	1	100%	1
	Indoor Environment Quality				**9.25**
9	Indoor Air Quality	4	2	100%	2
10	Acoustic Comfort	3	2	50%	1
11	Lighting Comfort	3	2	100%	2
12	Visual Comfort	3	-	50%-75%	1.75
13	Indoor Pollutants	2	2	100%	2
14	Thermal Comfort	2	1	50%	0.5
	Energy				**4.75**
15	Greenhouse Gas Emissions	20	4	100%	4
16	Peak Electricity Demand Reduction	2	1	75%	0.75
	Transport				**0.5**
17	Sustainable Transport	10	1	50%	0.5
	Water				**4**
18	Potable Water	6	5	100%	4
	Materials				**6**
19	Life Cycle Impacts	7	3	50%-100%	3
20	Responsible Building Materials	3	3	50%-100%	2.5

21	Sustainable Products	3	-	-	-
22	Construction and Demolition Waste	1	1	-	0.5
	Land Use & Ecology				**2**
23	Ecological Value	3	1	100%	1
24	Sustainable Sites	2	-	-	-
25	Heat Island Effect	1	1	100%	1
	Emissions				**4**
26	Stormwater	2	2	100%	2
27	Light Pollution	1	1	100%	1
28	Microbial Control	1	1	100%	1
29	Refrigerant Impacts	1	-	-	-
	Innovation				**8**
30	Innovation Challenge	10	8	100%	8
	Total	**110**	**53**		**50.25**

5.0 Appendixes

- **Appendix A - ESD compliance statements (sample templates)**
- **Appendix B - ESD Compliance Report (sample)**
- **Appendix C - Preliminary ESD Pathway**

Appendix A - ESD compliance statements (sample templates)

Head Contractor Statement

Contractor's letterhead

To: xxxxx

<date>

ESD Certificate of Compliance

I confirm that <insert contractor name> has delivered the sustainability requirements set out in the St Matthews Catholic School Mudgee - Secondary College Project ESD Pathway including:

1. The building fabric performance exceeds the minimum requirements of NCC 2019 Section J1 by __%
2. The project has achieved a minimum of 45 points in line with the approved ESD Certification process as described in the attached ESD Compliance Report.

The following sustainability requirements were not delivered:

- <list any omissions or departures here>

Signed

<Name>

<Position>

Consultant / Sub-Contactor Statement

Contractor's / Sub-Contactor's letterhead

To: xxxxx

<date>

ESD Certificate of Compliance

I confirm that <insert contractor name> has delivered the sustainability requirements set out in the St Matthews Catholic School Mudgee - Secondary College Project ESD Pathway including the following credits:

Credit No.	Credit Name	Summary of compliance

We confirm that detailed evidence referenced in the ESD Compliance Report to demonstrate compliance with the above is available on request.

The following sustainability requirements were not delivered:

- <list any omissions or departures here>

Signed

<Name>

<Position>

Appendix B - ESD Compliance Report (sample)

The Contractor is to prepare a report summarising how the Green Star credits in the pathway were achieved.

For each credit, the following template is to be completed. Two examples are given below.

Man-1: Green Star Accredited Professional	
Aim of Credit	To recognise projects that engage a Green Star Accredited Professional to support the Green Star certification process.
Credit Criteria	**1.1 Accredited Professional** 1 point is available where a Green Star Accredited Professional – Design & As Built (GSAP) has been contractually engaged to provide advice, support and information related to Green Star principles, structure, timing and processes, at all stages of the project, leading to certification.
Response	**1.1 Accredited Professional** Cundall have been engaged as the ESD Consultant from Concept Design till As-Built stage to prepare the sustainability requirements, and to review the Contractor's approach to sustainability. Cundall will be reviewing compliance with the Green Star requirements during construction and prepare the ESD Report.
Design Evidence	Letter of appointment from the client/head contractor confirming the appointment of an ESD Consultant/GSAP in the project. ESD Consultant GSAP licence
Construction Evidence	Letter of confirmation of the scope of work executed by an ESD Consultant/GSAP in the project. ESD Consultant GSAP licence
Points Available	**1 point**
Level of Compliance	**100%**
Points Achieved	**1 point**

Man-2: Commissioning and Tunning	
Aim of Credit	To encourage and recognise commissioning, handover and tuning initiatives that ensure all building services operate to their full potential and as designed.
Credit Criteria	**2.0 Environmental Performance Targets (mandatory)** Documented targets for the environmental performance of the project must be set. **2.1 Services and Maintainability Review** 1 point is available where comprehensive services and maintainability review of the project is performed. **2.2 Building Commissioning** 1 point is available where comprehensive pre-commissioning and commissioning activities are performed for all nominated building systems. **2.3 Building Systems Tuning** 1 point is available where a tuning process is in place that addresses all nominated building systems. **2.4 Independent Commissioning Agent** 1 additional point is available for utilisation of an Independent Commissioning Agent (ICA) to advise, monitor, and verify the commissioning and tuning of the nominated building systems throughout the design, tender, construction, commissioning and tuning phases.
Response	**2.0 Environmental Performance Targets (mandatory)** The Design Intent Report (DIR) that sets targets for energy and water consumption The School will commit to monitoring Energy and Water against benchmarks set by Cundall following completion of the energy modelling and detailed design. **2.1 Services and Maintainability Review**

	A Service and Maintainability Review will be carried out by the Main Contractor prior to Construction as per Green Star requirements **2.2 Building Commissioning** Comprehensive commissioning will be carried out similar to Green Star with the exception of Air permeability testing. As such partial compliance (75%) will be awarded. **2.3 Building Systems Tuning** Tuning commitment will be in place to addresses all nominated building systems **2.4 Independent Commissioning Agent** Not pursued.
Design Evidence	**2.0 Environmental Performance Targets (mandatory)** The Design Intent Report (DIR) with energy and water consumption targets **2.1 Services and Maintainability Review** Minutes from Workshop Report based on outcomes from Meeting Management Plan to execute into design & construction **2.2 Building Commissioning** Commissioning specification noting systems and relevant standards for commissioning. Commissioning Plan to be developed **2.3 Building Systems Tuning** Specifications detailing Building Tuning and sub-contractor confirmation of requirements for quarterly fine-tuning for 12 months after PC.
Construction Evidence	**2.0 Environmental Performance Targets (mandatory)** The Design Intent Report (DIR) sets targets for energy and water consumption **2.1 Services and Maintainability Review** Final Management Plan that incorporates service and maintainability meetings findings **2.2 Building Commissioning** Evidence of commissioning completed with a summary report and acceptance by relevant designers/building owner **2.3 Building Systems Tuning** Specifications detailing Building Tuning and sub-contractor confirmation of requirements for quarterly fine-tuning for 12 months after PC.
Points Available	**4 points**
Level of Compliance	**100% for credit 2.0, 2.1, 2.3 (2 points)** **75% for credit 2.2 (1 point)**
Points Achieved	**2.75 points**

Appendix C - Preliminary ESD Pathway

Preliminary ESD Certification Pathway

Project: St Matthew's Catholic School Mudgee - Secondary College

Targeted Points: min. 45 points

Issue date: 2/02/2021

Total Points Available	Total Points Targeted
110	50.25

CATEGORY / CREDIT	AIM OF THE CREDIT	CODE	CREDIT NAME	Points Available	Targeted for the Project	Level of Compliance	Points Targeted	Project response to Credit	Design Stage Proposed Evidence	As-Built Stage Proposed Evidence	Responsibility
Management											
Green Star Accredited Professional	To recognise projects that engage a Green Star Accredited Professional to support the Green Star certification process.	1.1	Accredited Professional	**1**	Yes	**100%**	**1**	Project has appointed Cundall as GSAP from Concept Design to As Built Stage	Letter of appointment from the client/head contractor confirming the appointment of an ESD Consultant/GSAP in the project. ESD Consultant GSAP licence	Letter of appointment from the client/head contractor confirming the appointment of an ESD Consultant/GSAP in the project. ESD Consultant GSAP licence	**Cundall**
Commissioning and Tuning	To encourage and recognise commissioning, handover and tuning initiatives that ensure all building services operate to their full potential and as designed.	2.0	Environmental Performance Targets	**-**	Yes	**100%**	**Compliance**	The School will commit to monitoring Energy and Water against benchmarks set by Cundall following completion of the energy modelling and detailed design.	Established energy and water targets Draft Letter from School confirming commitment to monitoring Energy and Water against set benchmarks	Letter from School confirming commitment to monitoring Energy and Water against set benchmarks	**NCB / Cundall**
		2.1	Services and Maintainability Review	**1**	Yes	**100%**	**1**	A Service and Maintainability Review will be carried out by the Main Contractor prior to Construction and will cover the following aspects for all nominated building systems: Commissionability, Controllability, Maintainability, Operability, including 'Fitness for Purpose', Safety	Confirmation from Main Contractor this is included in relevant sub-contractors scope and will be completed prior to construction	Service and Maintainability Review Report	**NCB / Calibere**
		2.2	Building Commissioning	**1**	Partial	**75%**	**0.75**	Comissioning Plan and Specification will be developed for the project. Comprehensive commissioning will be carried out based on the approved standards and guidelines with the exception of air permeability testing.	Commissioning specification noting systems and relevant standards for commissioning. Commissioning Plan to be developed	Evidence of commissioning completed with a summary report and acceptance by relevant designers / building owner Commissioning Plan and commitment to carry out the comissioning works	**NCB / Calibere**
		2.3	Building Systems Tuning	**1**	Yes	**100%**	**1**	Buildings SystemsTuning will be ensured based on the Contractor will comittment to quarterly adjustments and measurement for the first 12 months after occupation and a review of building system manufacturer warranties	Specifications detailing Building Tuning and sub-contractor confirmation of requirements for quarterly fine tuning for 12 months after PC.	Letter of commitments from School Monitoring plan post PC Reporting of monitoring outcomes	**Calibre**
		2.4	Independent Commissioning Agent	**1**	No	**-**	**-**	-	-	-	-
Adaptation and Resilience	To encourage and recognise projects that are resilient to the impacts of a changing climate and natural disasters.	3.0	Implementation of a Climate Adaptation Plan	**2**	Partial	**50%**	**1**	Project Team reviewed CSIRO - 'Climate Change in Australia' predictions and identified Climate Change Risks. Applicable mitigation measures were embeded into design addressing: Extended drought periods, More extreme rainfall events, and Gustier wind conditions.	Design Response (as included in SSDA Report)	As-Built drawings and specifications demonstrating design responses and mitigation measures embeded into as-built design	**Alleanza / Calibre**
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.	4.0	Building Operations and Maintenance Information	**1**	Yes	**100%**	**1**	Comprehensive operations and maintenance information will be developed for the School	Specifications detailing Building Operations and Maintenance Information	As-Built Building Operations and Maintenance Manuals	**Calibre / NCB**
		4.0.2	Building Log Book					Simplified Building Log Book outlining how to use O&M's and where information is kept for ongoing maintenance will be prepared for the School	Specifications detailing requirements for Building Log Book	Simplified Building Log Book outlining how to use O&M's and where information is kept for ongoing maintenance	
		4.0.3	Building User Information					Building User Information will be embeded in the Operations and Maintenance information developed for the School	Specifications detailing requirements	Building user information Included within O&M Minutes from User Group Training - Confirmation that building user information has been provided	
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 Performance	**1**	Yes	**100%**	**1**	Energy and Water targets will be set, measured and reviewed by the school.	Draft letter from School with a commitmtnt to set, measure and report on energy and water use based on targetes outlined for credit 2.0	Letter from School with a commitmtnt to set, measure and report on energy and water use based on targetes outlined for credit 2.0	**School**
		5.2	End of Life Waste Performance	**1**	Yes	**100%**	**1**	School will commit to extending the life of interior fit out or finishes to at least 10 years barring minor wear & tear or repairs	Specification showing warranty/life span on proposed finishes for 10 years (barring minor wear and tear or minor repair)	Specification showing warranty/life span on installed finishes School commitment letter to extending the life of the interior fitout or finishes to at least 10 years, barring minor wear and tear or minor repair	**NCB / School**
Metering and Monitoring	To recognise the implementation of effective energy and water metering and monitoring systems.	6.0	Metering	**-**	Yes	**100%**	**Compliance**	Accessible metering will be provided to monitor building energy and water consumption, including all energy and water major uses and sources. The metering will be accurate and will inform energy consumption practices and reduce wasted energy. Monitoring sustem will be provided capable of capturing and processing the data produced by the installed energy and water meters, and accurately and clearly presenting data consumption trends	Design and Specifications detailing the requirements for the metering and monitoring system	Drawings showing the location of all energy and water meters Letter from Consultant/Subcontractor confirming install Automatic monitoring system data sheet describing the systems features and capabilities.	**Calibre**
		6.1	Monitoring Systems	**1**	Yes	**100%**	**1**				**Calibre**

CATEGORY / CREDIT	AIM OF THE CREDIT	CODE	CREDIT NAME	Points Available	Targeted for the Project	Level of Compliance	Points Targeted	Project response to Credit	Design Stage Proposed Evidence	As-Built Stage Proposed Evidence	Responsibility
Construction Environmental Management	To reward projects that use best practice formal environmental management procedures during construction.	7.0	Environmental Management Plan	-	Yes	**100%**	**Compliance**	A best practice environmental management plan will be prepared for the construction	EMP prepared for construction Confirmation of subcontractor adherence to the EMP requirements detailed in Subby Packs, Induction Forms, NCB standard construction details	EMP prepared for construction Confirmation of subcontractor adherence to the EMP requirements detailed in Subby Packs, Induction Forms, NCB standard construction details Completed on site construction documentation	**NCB**
		7.1	Formalised Environmental Management System	**1**	Yes	**100%**	**1**	Contractor will have a certified EMS to ISO14001.	ISO 14001 Certificate provided by NCB	ISO 14001 Certificate provided by NCB	**NCB**
		7.2	High Quality Staff Support	**1**	Yes	**100%**	**1**	High Quality Staff Support Programs and solutions to support staff will be implemented and site workers' will be educated about sustainable practices.	NCB management plan detailing what services NCB offer & how it is implemented	Photos, Documentary evidence this has been provided/complete	**NCB**
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	8B	Prescriptive Pathway: Facilities	**1**	Yes	**100%**	**1**	Operational Waste Management Plan (OWMP) will be developed for the project and facilities will br in place to collect and separate distinct waste streams.	OWMP prepared, including architectural drawings	OWMP including as-built architectural drawings	**Alleanza**
Total				**14**			**11.75**				
Indoor Environment Quality											
Indoor Air Quality	To recognise projects that provide high air quality to occupants.	9.1	Ventilation System Attributes	**1**	Yes	**100%**	**1**	Ventilation system will be design to meet the following: - mitigate the entry of outdoor pollutants in line with ASHRAE Standard 62.1:2013 - designed for ease of maintenance and cleaning - will be cleaned prior to occupation and use	Drawings & Specifications detailing requirements (credit applicable for primary and secondary spaces only)	As-Built drawings Installation letter of compliance from relevatn Consultant/Subcontractors	**Calibre**
		9.2	Provision of Outside Air	**2**	No	-	-	-	-	-	-
		9.3	Exhaust or Elimination of Pollutants	**1**	Yes	**100%**	**1**	Dedicated exhaust system (directly to outside) will be provided for spaces that are affected by pollutants from cooking processes and equipment, vehicle, and printers (optionally school to install low emission photocopiers). The fans must be installed as part of the base building.	Drawing & Specifications detailing requirements (credit applicable for primary and secondary spaces only) Extract from the printing and photocopy specification for school, where applicable	As-Built drawings Install letter from Consultant/Subcontractor Extract from the printing and photocopy specification for school, where applicable	**Calibre**
Acoustic Comfort	To reward projects that provide appropriate and comfortable acoustic conditions for occupants.	10.1	Internal Noise Levels	**1**	Partial	**50%**	**0.5**	Internal ambient noise levels in the learning spaces will be suitable and relevant to the learning activities. This will includes all sound generated by the building systems and any external noise ingress. Appropriate noise levels (outside and building systems) not more than 5dB above satisfactory	Design Specification by Acoustic Engineer (credit applicable for primary and secondary spaces)	Report by an acoustics consultant confirming credit compliance	**Acoustic consultant**
		10.2	Reverberation	**1**	Partial	**50%**	**0.5**	Learning spaces will be built to reduce the persistence of sound to a level suitable to the learning activities as per recommended reverberation times in table 1 of AS/NZS 2107:2000.	Design Specification by Acoustic Engineer (credit applicable for primary and secondary spaces)	Report by an acoustics consultant confirming credit compliance	**Acoustic consultant**
		10.3	Acoustic Separation	**1**	No	-	-	-	-	-	-
Lighting Comfort	To encourage and recognise well-lit spaces that provide a high degree of comfort to users.	11.0	Minimum Lighting Comfort	-	Yes	**100%**	**Compliance**	All lights in the primary and secondary areas will be flicker-free and accurately address the perception of colour in the spac	Drawing & Specifications detailing lighting system provided for primary and secondary spaces	As-Built documentation (e.g. Lighting Drawings, Architectural Drawings, Lighting Specifications/Schedules, Product Data Sheets) Install letter from Consultant/Subcontractor	**Calibre**
		11.1	General Illuminance and Glare Reduction	**1**	Yes	**100%**	**1**	General lighting levels will meet maintained illuminance in AS1680 series. Glare from lamps to be reduced through either: - all lamps having diffusers, baffles etc.; - Lighting system compliant with luminaire selection system	Drawing & Specifications detailing lighting system provided for primary and secondary spaces	As-Built documentation (e.g. Lighting Drawings, Architectural Drawings, Lighting Specifications/Schedules, Product Data Sheets) Install letter from Consultant/Subcontractor	**Calibre**
		11.2	Surface Illuminance	**1**	No	-	-	-	-	-	-
		11.3	Localised Lighting Control	**1**	Yes	**100%**	**1**	Local lighting control with dimming (where appropriate) will be provided. Occupants will have the ability to control the lighting in their immediate environment.	Drawing & Specifications detailing requirements (credit applicable for primary and secondary spaces only)	As-Built documentation (e.g. Lighting Drawings, Architectural Drawings, Lighting Specifications/Schedules, Product Data Sheets) Install letter from Consultant/Subcontractor	**Calibre**
Visual Comfort	To recognise the delivery of well-lit spaces that provide high levels of visual comfort to building occupants.	12.0	Glare Reduction	-	Yes	**100%**	**Compliance**	The glare, in learning spaces from sunlight through all viewing façades and skylights will be reduced through a combination of blinds, screens, fixed devices, or other means.	Drawing & Specifications detailing window shading and blinds to prevent glare in e.g. classrooms (credit applicable for primary and secondary spaces only)	As-Built Drawings & Specifications detailing window shading and blinds to prevent glare in e.g. classrooms (credit applicable for primary and secondary spaces only) or Letter confirming compliance with design assumptions	**Alleanza**
		12.1	Daylight	**2**	Partial	**50%**	**1**	Learning spaces will receives high levels of daylight.	Daylight hand-calcs for primary spaces (e.g. classromms) (credit applicable for primary spaces only)	As-Built confirmation for daylight and Letter confirming compliance with design assumptions	**Alleanza**
		12.2	Views	**1**	Yes	**75%**	**0.75**	Learning spaces will have a clear line of sight to a high quality internal or external view.	Views calcs for primary spaces (e.g. classromms) (credit applicable for primary spaces only)	As-Built confirmation for views for primary spaces (e.g. classromms) (credit applicable for primary spaces only)	**Alleanza**

CATEGORY / CREDIT	AIM OF THE CREDIT	CODE	CREDIT NAME	Points Available	Targeted for the Project	Level of Compliance	Points Targeted	Project response to Credit	Design Stage Proposed Evidence	As-Built Stage Proposed Evidence	Responsibility
Indoor Pollutants	To recognise projects that safeguard occupant health through the reduction in internal air pollutant levels.	13.1	Paints, Adhesives, Sealants and Carpets	**1**	Yes	**100%**	**1**	Internally applied paints, adhesives, sealants and carpets meet stipulated 'Total VOC Limits' (e.g. paints max. 16g/L, adhesives and sealants 50g/L) or will be certified under a recognised Product Certification Scheme.	Specifications, SDS for proposed finishes, Test certificates for proposed finishes	As-Built confirmation and data-sheets/SDS/certificates for used/installed products	**NCB**
		13.2	Engineered Wood Products	**1**	Yes	**100%**	**1**	Engineered wood products used on the project will meet stipulated formaldehyde limits or will be certified under a recognised Product Certification Scheme. Or no new engineered wood is installed	Specifications, SDS for proposed finishes, Test certificates for proposed finishes	As-Built confirmation and data-sheets/SDS/certificates for used/installed products (e.g. Purchase Orders/Invoices)	**NCB**
Thermal Comfort	To encourage and recognise projects that achieve high levels of thermal comfort.	14.1.1	Naturally ventilated spaces	**1**	Partial	**50%**	**0.5**	Naturally Ventilated Spaces - The internal temperatures in each space will be within Acceptability Limit 1 of ASHRAE Standard 55-2013.	Drawings showing the building's natural ventilation strategy. Specification and confirmation from the Mechanical Consultatn	Confirmation from the relevant sub-contractors that all services have been installed in line with the listed DTS criteria	**Calibre**
		14.1.2	Mechanically Ventilated Spaces					Mechanically Ventilated Spaces – The space will meet specified prescriptive criteria for Thermal Comfort or the Predicted Mean Vote (PMV) levels are between -1 and +1, inclusive.	Drawings showing the building's mechanical ventilation strategy and compliance with HVAC prescriptive requirements. Specification and confirmation form the Mechanical Consultatn	As-Built documentation showing showing compliance with HVAC prescriptive requirements. Confirmation form the Mechanical Consultatn	
		14.2	Advanced Thermal Comfort	**1**	No	**-**	**-**	-	-	-	-
Total				**17**			**9.25**				
Energy											
Greenhouse Gas Emissions	To encourage energy efficient buildings and the reduction of greenhouse gas (GHG) emissions associated with the use of energy in building operations	15E.0	Conditional Requirement: Prescriptive Pathway	**-**	Yes	**100%**	**Complies**	Proposed Buildings GHG emissions will be 10% less than Reference Building (achieves minimal compliance with the NCC Section J DTS)	Documentation showing improvement over Deemed-to-Satisfy requirements of Section J of the NCC.	Documentation showing improvement over Deemed-to-Satisfy requirements of Section J of the NCC.	**NCB / Alleanza**
		15.E	Reference Building Pathway	**20**	Yes	**100%**	**4**	Energy Modelling will be provided for the school buidlings to show the percentage improvement of the operational greenhouse gas (GHG) emissions from the Proposed Building over the equivalent Benchmark Building.	Energy Modelling report	Confirmation the As Built conditions reflect the Energy Modelling performanvce parameters or an updated Energy Modelling report based on As Built conditions.	**Cundall**
Peak Electricity Demand Reduction	To encourage the reduction of peak demand load on the electricity network infrastructure.	16A	On-site Energy Generation	**1**	Yes	**75%**	**0.75**	On-site PV system will be installed to reduces the total peak electricity demand.	PV Specification and electrical peak demand reduction calculations	PV As-Built drawings and specification and updated electrical peak demand reduction calculations.	**Calibre**
Total				**10**			**4.75**				
Transport											
Sustainable Transport	To reward projects that implement design and operational measures that reduce the carbon emissions arising from occupant travel to and from the project, when compared to a reference building. This also promotes the health and fitness of commuters, and the increased liveability of the location.	17A.1	Performance Pathway	**10**	TBC	**TBC**	**TBC**	Project will target either performance pathawy 17A using GBCA Tranport Calculator and developing Green Travel Plan or will meet selected prescriptive pathawy 17B.	TBC - Green Star Equiivlant Transport Plan and calculator purchased from GBCA completed	TBC - Green Star Equiivlant Transport Plan and calculator purchased from GBCA completed	**NCB / TTPP**
		17B.1	Access by Public Transport	**3**	No	**-**	**-**	-	-	-	-
		17B.2	Reduced Car Parking Provision	**1**	No	**-**	**-**	-	-	-	-
		17B.3	Low Emission Vehicle Infrastructure	**1**	No	**-**	**-**	-	-	-	-
		17B.4	Active Transport Facilities	**1**	Yes	**50%**	**0.5**	Bicycle parking will be provided for the students, and for the school staff end-of-trip facilities will aslo be provided.	Project Drawings showing the proposed bicycle parking spaces, and end-of trip facilities	Project Drawings showing the proposed bicycle parking spaces, and end-of trip facilities	**TTPP**
		17B.5	Walkable Neighbourhood	**1**	No	**-**	**-**	-	-	-	-
Total				**10**			**0.5**				

CATEGORY / CREDIT	AIM OF THE CREDIT	CODE	CREDIT NAME	Points Available	Targeted for the Project	Level of Compliance	Points Targeted	Project response to Credit	Design Stage Proposed Evidence	As-Built Stage Proposed Evidence	Responsibility
Water											
Potable Water	To encourage building design that minimises potable water consumption in operations.	18B.1	Sanitary Fixture Efficiency	**1**	Yes	**100%**	**1**	Water efficient fixtures will be provided on the project including WELS rated: Taps 5 Star, Toilet 4 Star, Showers 3 Star.	WELS requriemetns noted in specifications and equipment schedules for all toilets, urinals, taps, showers, dishwashers, and residential-scale laundry equipment.	Summary compliance report and WELS certificates for all toilets, urinals, taps, showers, dishwashers, and residential-scale laundry equipment.	**Calibre**
		18B.2	Rainwater Reuse	**1**	Yes	**50%**	**0.5**	A rainwater tank will be installed to collect and reuse rainwater within the project's site boundary as deemed appropriate by the project team.	Drawings & Specification for rainwater tank	As-Built confirmation - Installation Letter from the consultant/Subcontractor	**Calibre**
		18B.3	Heat Rejection	**2**	Yes	**100%**	**2**	The project will be not use water for heat rejection by using VRF heating/cooling (no cooling towers or evaporative cooling)	Confirmation HVAC uses VRF heating/cooling (no cooling towers or evaporative cooling)	Confirmation HVAC uses VRF heating/cooling (no cooling towers or evaporative cooling)	**Calibre**
		18B.4	Landscape Irrigation	**1**	Yes	**50%**	**0.5**	No potable water will be used for the landscape irrigation or drip irrigation with moisture sensor override will be installed. In the case of a xeriscape garden, the irrigation systems can be temporarly used, assuming it will be removed after plants adaptaion and the landscape will not require watering	Landscape Design - Drawings & Specification for native plants, and confirmation there is no drip irigation system	As-Built confirmation Letter from the consultant/Subcontractor	**Calibre**
		18B.5	Fire Protection System Test Water	**1**	NA	**-**	**-**	-	-	-	**Calibre**
Total				**6**			**4**				
Materials											
Life Cycle Impacts	Address the consumption of resources within a building construction context, by encouraging the selection of lower-impact materials	19B.1.1	Portland Cement Reduction	**2**	Yes	**50%**	**1**	Portland cement content in concrete used in the project will be reduced by replacing it with supplementary cementitious materials.	Specification setting-up targets for concrete (Portland Cement, Water, Agregate), including BoQ where available Supply Letter from the Supplier for the concrete used on the project Contractor will track concrete compliance till project completion	As-Built summary for concrete confirming compliance	**NCB**
		19B.1.2	Water Reduction	**0.5**	Yes	**100%**	**0.5**	Mix water for concrete used in the project will contain captured or reclaimed water (measured across all concrete mixes in the project).	Specification setting-up targets for concrete (Portland Cement, Water, Agregate), including BoQ where available Supply Letter from the Supplier for the concrete used on the project Contractor will track concrete compliance till project completion	As-Built summary for concrete confirming compliance	**NCB**
		19B.1.3	Aggregates Reduction	**0.5**	Yes	**100%**	**0.5**	Coarse aggregate in the concrete will include crushed slag aggregate or another alternative material OR fine aggregate (sand) inputs in the concrete are manufactured sand or other alternative materials.	Specification setting-up targets for concrete (Portland Cement, Water, Agregate), including BoQ where available Supply Letter from the Supplier for the concrete used on the project Contractor will track concrete compliance till project completion	As-Built summary for concrete confirming compliance	**NCB**
		19B.2A	Reduced Mass of Steel (Framing or Reinforcement) **(for Steel Framed Building)**	**1**	Yes	**50%**	**1**	Project will reduce the mass of steel framing used when compared to standard practice, where applicable.	Drawings & Specification, BoQ for the Design with targets to meet credit requirements	As-Bult confirmation of compliance from Engineer	**NCB / Triaxial**
		19B.2B	Reduce use of steel reo **(for Concrete Framed Building)**					Project will reduce the mass of steel reinforcement used when compared to standard practice, where applicable.	Drawings & Specification, BoQ for the Design with targets to meet credit requirements	As-Bult confirmation of compliance from Engineer	
		19B.3.1	Façade Reuse	**2**	No	**-**	**-**	-	-	-	-
		19B.3.2	Structure Reuse	**2**	No	**-**	**-**	-	-	-	-
		19B.4.0	Responsible Sourcing	**-**	No	**-**	**-**	-	-	-	-
		19B.4.1	Reduced Embodied Impacts	**3**	No	**-**	**-**	-	-	-	-
Responsible Building Materials	To reward projects that include materials that are responsibly sourced or have a sustainable supply chain.	20.1	Structural and Reinforcing Steel	**1**	Yes	**100%**	**1**	The building's steel (by mass) will be sourced from a Responsible Steel Maker and A. For steel framed buildings the fabricated structural steelwork is supplied by a steel fabricator/steel contractor accredited to the Environmental Sustainability Charter of the Australian Steel Institute (ASI);	Drawings & Specification, Commitment Letter from the Contractor	Supply Certificates, PO/Invoices, As-Built letter from Engineer	**NCB**
		20.2	Timber Products	**1**	Yes	**50%**	**0.5**	Timber used in the building and construction works will be either FSC / PEFC certified or will be from a reused source.	Design Specification will include FSC/PEFC timber, where used on the project	Ad-Built confirmation letter from the Contracotr, FSC/PERC Certificates for As-Built timber products and materials	**NCB**
		20.3	Permanent Formwork, Pipes, Flooring, Blinds and Cables	**1**	Yes	**100%**	**1**	Cables, pipes, floors and blinds will meet best practice PVC guidelines OR will not contain PVC (and have EPDs).	Design Specification for cables, pipes, floors, blinds outlining PVC Best Practice requirements or not contain PVC (and have EPDs)	Ad-Built confirmation letter from the Contracotr, data sheets for PVC products and materials used	**Calibre / NCB**
Sustainable Products	To encourage sustainability and transparency in product	21.1	Product Transparency and Sustainability	**3**	No	**-**	**-**	-	-	-	-
Construction and Demolition Waste	To reward projects that reduce construction waste going to landfill by reusing or recycling building materials	22.0	Reporting Accuracy	**-**	Yes	**100%**	**Compliance**	Construction Waste Management Plan will be prepared by the Contractor and will include construction waste diversion oportunities available regionally in Mudgee, including identification of local waste contractors and waste processing facilities and their capabilities for waste management. Due to regional location of the project oportunities for waste diversion might be limited.	Construction Waste Management Plan Statement on site limitation and availability of waste diversion services	As-Built statement from the Contractor outlining construction waste divertion rate. Dockets and statements form the waste contractor and processing facility.	**NCB**
		22B	Percentage Benchmark	**1**	Yes	**50%**	**0.5**				
Total				**12**			**6**				

CATEGORY / CREDIT	AIM OF THE CREDIT	CODE	CREDIT NAME	Points Available	Targeted for the Project	Level of Compliance	Points Targeted	Project response to Credit	Design Stage Proposed Evidence	As-Built Stage Proposed Evidence	Responsibility
Land Use & Ecology											
Ecological Value	To reward projects that improve the ecological value of their site.	23.0	Endangered, Threatened or Vulnerable Species	-	Yes	100%	Compliance	Demonstrate that no species or ecological communities were present on site which have the status: critically endangered, endangered or vulnerable.	Statement outlining what was on the site prior redevelopment to confirm compliance with minimum requirement	Statement outlining what was on the site prior redevelopment to confirm compliance with minimum requirement	**Alleanza / NCB**
		23.1	Ecological Value	1	Yes	100%	1	Improving the site ecology (by site area) e.g. native plants replacing hardscape with native vegetation	Landscape design and specification outlining types of planning and how it improves ecological value (biodiversity) of the site	Landscape As-Built confirmation on improving ecological value (biodiversity)	**Landscape Architect**
Sustainable Sites	To reward projects that choose to develop sites that have limited ecological value, re-use previously developed land and remediate contaminated land.	24.0	Conditional Requirement	-	No	-	-	-	-	-	-
		24.1	Reuse of Land	1	No	-	-	-	-	-	-
		24.2	Contamination and Hazardous Materials	1	No	-	-	-	-	-	-
Heat Island Effect	To encourage and recognise projects that reduce the contribution of the project site to the heat island effect.	25.0	Heat Island Effect Reduction	1	Yes		1	The site area will include buildings and landscape that reduce the heat island effect through e.g.: Vegetation, High Surface Reflectance Index (SRI) roof or hardscape, or Hardscape shaded by vegetation	Design Drawings - Architectural and Landscape - confirming the level of compliance for the site (e.g. vegetation, White roofs, shading by trees)	As Built Drawings - Architectural and Landscape - confirming the level of compliance for the site (e.g. vegetation, White roofs, shading by trees)	**Alleanza / NCB**
Total				6			2				
Emissions											
Stormwater	To reward projects that minimise peak stormwater flows and reduce pollutants entering public sewer infrastructure.	26.1	Reduced Peak Discharge	1	Yes	100%	1	Post development peak discharge will not exceed pre-development peak discharge based on the Average Recurrence Interval	Drawings & Specification outlining stormwater management on site	As-Built Drawings & Specification outlining stormwater management on site	**Triaxial / NCB**
		26.2	Reduced Pollution Targets	1	Yes	100%	1	Discharge will meet pollution reduction targets in column A of GBCA table	Drawings & Specification outlining how discharge pollution reduction targets are achieved	As-Built Drawings & Specification outlining how discharge pollution reduction targets are achieved	**Triaxial / NCB**
Light Pollution	To reward projects that minimise light pollution.	27.0	Light Pollution to Neighbouring Bodies	-	Yes	100%	Compliance	Site will comply with AS4282 Control of the Obtrusive Effects of Outdoor Lighting	Drawings & Specification outlining compliance with AS4282 Control of the Obtrusive Effects of Outdoor Lighting	As Built drawing indicating the location and type of all external luminaires and showing the aiming point and mounting orientation of all external luminaires.	**Calibre**
		27.1	Light Pollution to Night Sky	1	Yes	100%	1	No luminaire to have an upward light output ratio above 5%; OR Direct illuminance no greater than 0.5Lux at site boundary and 0.1 Lux beyond highest point of building into night sky	Drawings & Specification confirming that No luminaire have an upward light output ratio above 5%	As-Built Drawings & Specification confirming that No luminaire have an upward light output ratio above 5%	**Calibre**
Microbial Control	To recognise projects that implement systems to minimise the impacts associated with harmful microbes in building systems.	28.0	Legionella Impacts from Cooling Systems	1	Yes		1	Buildings will be naturally ventilated - no water based heat rejection system.	Letter of confirmation confirming we are not installing water based rejection.	Letter of confirmation confirming we are not installing water based rejection.	**Calibre**
Refrigerant Impacts	To encourage operational practices that minimise the	29.0	Refrigerants Impacts	1	No	-	-	-	-	-	-
Total				5			4				
Innovation											
Innovative Technology or Process	The project meets the aims of an existing credit using a technology or process that is considered	30A	Innovative Technology or Process	10	Yes	100%	8	TBC - Currently proposed innovations include e.g.: - Education programs on local sustainability aspects - Heritage signage and art strategy - Reconciliation Action Plan - Green Cleaning Policy - IT Policy for energy efficient equipment - High quality learning environments - Design for mental health support - High speed internet - ultra Low-VOC paints - Financial Transparency - High Performance site offices - Local Procurement	Design submissions TBC, to include specification or commitment letters to address the following e.g.: - Education Programs - Heritage Strategy - Reconciliation Action Plan - Green Cleaning Policy - IT Policy for energy efficient equipment - Design documentation for the High quality learning environments and Design for mental health support - High speed internet Policy - ultra Low-VOC paints certificates - Financial Transparency spreadsheet - High Performance site offices Checklist - Local Procurement evidence	As-Built documentation e.g.: - Education Programs - Heritage Strategy - Reconciliation Action Plan - Green Cleaning Policy - IT Policy for energy efficient equipment - Design documentation for the High quality learning environments and Design for mental health support - High speed internet Policy - ultra Low-VOC paints certificates - Financial Transparency spreadsheet - High Performance site offices Checklist - Local Procurement evidence	**School / TSA** **Alleanza** **NCB**
Market Transformation	The project has undertaken a sustainability initiative that substantially contributes to the	30B	Market Transformation								
Improving on Green Star Benchmarks	The project has achieved full points in a Green Star credit and demonstrates a substantial	30C	Improving on Green Star Benchmarks								
Innovation Challenge	Where the project addresses an sustainability issue not included within any of the Credits in the	30D	Innovation Challenge								
Global Sustainability	Project teams may adopt an approved credit from a Global Green Building Rating tool that	30E	Global Sustainability								
Total				10			8				

Attachment 2 – Response to C22 AltESDCertification-DPIE_Review Table

Project:	St Matthews Catholic College (SSD-9872)
Document:	Alternative ESD Certification Request – Rev B, 02/02/2021
Date received from the Applicant:	04/02/2021
Date comments sent by DPIE:	05/03/2021
Date Response Issued by Applicant	18/03/2021

Comment No.	CoC	Requirement	Document reference	DPIE comment	Project Team Response	Comments addressed (Yes/No)	Section or Page no	Status
1	**C22**	Prior to the commencement of construction, unless otherwise agreed by the Planning Secretary, the Applicant must demonstrate that ESD is being achieved by either:	Alternative ESD Certification Request – Rev B, 02/02/2021	1. The Applicant has submitted an Alternative ESD certification request prior to the commencement of construction. The Applicant was granted a time extension to satisfy the timing component of this condition. Please provide a response to the below comment.	N/A	-	-	**Closed**
2	**(a)**	(a) registering for a minimum 4-star Green Star rating with the Green Building Council Australia and submitting evidence of registration to the Certifier; or	-	2. The Applicant is seeking approval from the Planning Secretary for an alternative certification process. Part (a) of condition C22 is not triggered.	N/A	-	-	**Closed**
3	**(b)**	(b) seeking approval from the Planning Secretary for an alternative certification process.	-	3. (a) The Department considers that an important component of an alternate ESD certification process is to allow the opportunity for the independent ESD consultant to verify and make corrections to ensure that the project achieves the intended sustainability goals , benchmarks including checking, correcting and verifying the sustainability progress. Therefore, this should be included during the construction phase. **DPIE comment:** Please clarify how will the ESD consultant ensure that the project is on track to deliver the minimum 45 points for the 4 star green star equivalency, and what opportunities will be given to the ESD consultant to provide corrective input if the project needs assistance in tracking towards 45 points during the construction phase of the project?	ESD consultant will be engaged by the Catholic Education Diocese of Bathurst as an independent verifier to ensure the best ESD outcomes for the Client and the Project. During the Construcion phase Quarterly Reports will be developed by the Main Contractor identifying a current compliance status for targeted initiatives. The reports will be submitted to the ESD consultant to allow for corrective input if the project needs assistance towards achieving 45 points. High-risk items will be identified early in the process and addressed in details in quarterly reports by the Main Contractor providing an opportunity to the ESD Consultant to review and advise on the best approach to meet the requirements, where needed. Review of design documentation compliance, (similar to the Green Star Design Review process) will take place early in the construction phase to verify and confirm design-related sustainability initiatives and allow for corrective action. Design Compliance Report outlining evaluation of the design evidence will be prepared by the ESD Consultant and will confirm achieved design-related initiatives or will inform any additional design works, where required. The final assessment (similar to Green Star As-Built submission) will take place at the post			**Open**

Comment No.	CoC	Requirement	Document reference	DPIE comment	Project Team Response	Comments addressed (Yes/No)	Section or Page no	Status
					completion stage through the evaluation of the as-built documentation. As-built Compliance Report outlining evaluation of the as-built design and construction initiatives will be prepared by the ESD Consultant to the Planning Secretary and Certifier. Please refer to St Matthew's Catholic School Mudgee - Secondary College - Submission for an alternative ESD certification process rev. C (issue date: 18/03/2021) Section 4.4 for details on compliance tracking throughout the project execution.			