If a building becomes architecture, then it is art. Clearly, if a building is not functionally and technically in order, then it isn't architecture either – it's just a building.
Arne Jacobsen

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STEENSEN VARMING

Att. [redacted]

Tweed Valley Hospital

Sydney, 12th August 2024
Ref. No. 177167 CAN S01

HI ESD Framework Compliance Statement (ESD Peer Review)

Steensen Varming has been engaged to undertake the independent ESD peer review role in accordance with the DGN 058. The HI minimum targets have been embedded within ESD Evaluation Tool and is designed to align with the NSW Government Resource Efficiency Policy (GREP) v2 section E4. It is deemed that the DPIE's ESD requirements for SSD is satisfied through compliance with DGN 058. Therefore, this also complies with the ESD certification requirement included in condition 27 (energy efficiency) and condition E10 (Ecologically Sustainable Development) of SSD 10353.

I confirm that Lendlease Building (head contractor) and LCI (Contractor' ESD Consultant) have maintained regular contact with our team during Design Development (Part 4) through to Post Occupancy Evaluation (Part 9), including submission of relevant ESD documentation for our review.

Based on the As-Built Package 1-3 evidence received to date and the review processes that have been undertaken, I confirm that the project complies with the ESD requirement to achieve a 4 Star (at least 45 points) equivalency in accordance with the HI ESD Evaluation Tool. In addition, the energy report (provided by LCI) has demonstrated 3% and 37% improvement over the NCC requirements respectively for the building fabric and services.

Therefore, the ESD certification of the ESD and energy efficiency (Conditions 10 and 27 of SSD 10353) requirement has been satisfied through the compliance with DGN 058.

Category	Points Awarded
Management	12
Indoor Environment Quality	11
Energy	7.6
Transport	1
Water	3.2
Materials	8.5
Land Use & Ecology	3.8
Emissions	2
Innovation	5
Total	**48**
4 Star Threshold	45

The As-Built scorecard has been enclosed for information.

Kind regards,

[redacted]

[redacted]
Associate Director

Green Star - Design & As Built Scorecard

Project:	Tweed Valley Hospital
Targeted Rating:	4 Star - Best Practice

Points Available (Targeted)	Project Score (Targeted)
100.0	54.9

Project Score (Awarded)	Project Score (TBC)	Points Available (Awarded)
48.0	6.0	100.0

CATEGORY / CREDIT	AIM OF THE CREDIT / SELECTION	CODE	CREDIT CRITERIA	POINTS AVAILABLE	POINTS TARGETED	POINTS AWARDED	POINTS TBC	POINTS OUTCOME	ASSESSMENT COMMENTS
Management									
Green Star Accredited Professional	To recognise the appointment and active involvement of a Green Star Accredited Professional in order to ensure that the rating tool is applied effectively and as intended.	1 0	Accredited Professional	1	1	1		Awarded - Compliant	Previously submitted in Submission Package 2. SV Approved
Commissioning and Tuning	To encourage and recognise commissioning, handover and tuning initiatives that ensure all building services operate to their full potential.	2 0	Environmental Performance Targets	-	Complies	Complies		Awarded - Compliant	Submitted in As Built Round 1 submission package
		2.1	Services and Maintainability Review	1	1		1	Not Awarded - Major non-compliance	Submitted in As Built Round 1 submission package
		2 2	Building Commissioning	1					Not targeted
		2 3	Building Systems Tuning	1					Not targeted
		2.4	Independent Commissioning Agent	1	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
Adaptation and Resilience	To encourage and recognise projects that are resilient to the impacts of a changing climate and natural disasters.	3.1	Implementation of a Climate Adaptation Plan	2	2	2		Awarded - Compliant	Submitted in As Built Round 1 submission package
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.	4.1	Building Information	1	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
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	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
		5 2	End of Life Waste Performance	1	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
Metering and Monitoring	To recognise the implementation of effective energy and water metering and monitoring systems.	6 0	Metering	-	Complies	Complies		Awarded - Compliant	Submitted in As Built Round 1 submission package
		6.1	Monitoring Systems	1	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
Responsible Building Practices	To reward projects that use best practice formal environmental management procedures during construction.	7 0	Environmental Management Plan	-	Complies	Complies		Awarded - Compliant	Previously submitted in Submission Package 2. SV Approved
		7.1	Formalised Environmental Management System	1	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
		7 2	High Quality Staff Support	1	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
Operational Waste	A. Performance Pathway	8A	Performance Pathway - Specialist Plan	1	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
		8B	Prescriptive Pathway - Facilities	-					
Total				**14**	**12**	**11**	**1**		

CATEGORY / CREDIT	AIM OF THE CREDIT / SELECTION	CODE	CREDIT CRITERIA	POINTS AVAILABLE	POINTS TARGETED	POINTS AWARDED	POINTS TBC	POINTS OUTCOME	ASSESSMENT COMMENTS
Indoor Environment Quality									
Indoor Air Quality	To recognise projects that provide high air quality to occupants.	9.1	Ventilation System Attributes	1					Not targeted
		9 2	Provision of Outdoor Air	2					Not targeted
		9 3	Exhaust or Elimination of Pollutants	1	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
Acoustic Comfort	To reward projects that provide appropriate and comfortable acoustic conditions for occupants.	10.1	Internal Noise Levels	1	1	1		Awarded - Minor non-compliance	Submitted in As Built Round 1 submission package
		10.2	Reverberation	1	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
		10.3	Acoustic Separation	1					Not targeted
Lighting Comfort	To encourage and recognise well-lit spaces that provide a high degree of comfort to users.	11.0	Minimum Lighting Comfort	-	Complies	Complies		Awarded - Compliant	Submitted in As Built Round 1 submission package
		11.1	General Iluminance and Glare Reduction	1	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
		11.2	Surface Illuminance	1					Not targeted
		11.3	Localised Lighting Control	1					Not targeted
Visual Comfort	To recognise the delivery of well-lit spaces that provide high levels of visual comfort to building occupants.	12.0	Glare Reduction	-					Not targeted
		12.1	Daylight	2					Not targeted
		12.2	Views	1					Not targeted
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	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
		13.2	Engineered Wood Products	1	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
Thermal Comfort	To encourage and recognise projects that achieve high levels of thermal comfort.	14.1	Thermal Comfort	1	1	1		Awarded - Compliant	Submitted in As Built Round 1 submission package
		14.2	Advanced Thermal Comfort	1					Not targeted
Total				**17**	**7**	**7**	**0**		

CATEGORY / CREDIT	AIM OF THE CREDIT / SELECTION	CODE	CREDIT CRITERIA	POINTS AVAILABLE	POINTS TARGETED	POINTS AWARDED	POINTS TBC	POINTS OUTCOME	ASSESSMENT COMMENTS
Energy									
Greenhouse Gas Emissions	E. Modelled Performance Pathway	15A.0	Conditional Requirement: Prescriptive Pathway	-					
		15A.1	Building Envelope	-					
		15A.2	Glazing	-					
		15A.3	Lighting	-					
		15A.4	Ventilation and Air-conditioning	-					
		15A.5	Domestic Hot Water Systems	-					
		15A.6	Accredited GreenPower	-					
		15B.0	Conditional Requirement: NatHERS Pathway	-					
		15B.1	NatHERS Pathway	-					
		15C.0	Conditional Requirement: BASIX Pathway	-					
		15C.1	BASIX Pathway	-					
		15D.0	Conditional Requirement: NABERS Pathway	-					
		15D.1	NABERS Energy Commitment Agreement Pathway	-					
		15E.0	Conditional Requirement: Reference Building Pathway	-	Complies	Complies		Awarded - Compliant	Submitted in As Built Round 1 submission package
		15E.1	Comparison to a Reference Building Pathway	20	6.45	6.45		Awarded - Compliant	Submitted in As Built Round 1 submission package
		15I.0	Conditional Requirement: On-site Renewables Pathway	-					
		15I.1	On-site Renewable Energy	-					
Peak Electricity Demand Reduction	B. Performance Pathway	16A	Prescriptive Pathway - On-site Energy Generation	-					
		16B	Performance Pathway - Reference Building	2	2	2		Awarded - Compliant	Submitted in As Built Round 1 submission package

Total				**22**	**8.45**	**8.45**	**0**	

Transport								
Sustainable Transport	A. Performance Pathway	17A.1	Performance Pathway	10				Not targeted
		17B.1	Access by Public Transport	-				
		17B.2	Reduced Car Parking Provision	-				
		17B.3	Low Emission Vehicle Infrastructure	-				
		17B.4	Active Transport Facilities	-				
		17B.5	Walkable Neighbourhoods	-				
		17C.1	Access by Public Transport	-				
		17C.2	Reduced Car Parking Provision	-				
		17C.3	Low Emission Vehicle Infrastructure	-				
		17C.4	Active Transport Facilities	-				
		17C.5	Proximity to Amenities	-				
Total				**10**	**0**	**0**	**0**	

Water								
Potable Water	A. Performance Pathway	18A.1	Potable Water - Performance Pathway	12	3.7	3.7	Awarded - Compliant	Submitted in As Built Round 1 submission package
		18B.1	Sanitary Fixture Efficiency	-				
		18B.2	Rainwater Reuse	-				
		18B.3	Heat Rejection	-				
		18B.4	Landscape Irrigation	-				
		18B.5	Fire System Test Water	-				
Total				**12**	**3.7**	**3.7**	**0**	

Materials								
Life Cycle Impacts	B. Prescriptive Pathway - Life Cycle Impacts	19A.1	Comparative Life Cycle Assessment	-				
		19A.2	Additional Life Cycle Impact Reporting	-				
		19B.1	Concrete	3	3	3	Awarded - Compliant	Submitted in As Built Round 1 submission package
		19B.2	Steel	1				Not targeted
		19B.3	Building Reuse	4				Not targeted
		19B.4	Structural Timber	3				Not targeted
		19C.1	Concrete	-				
		19C.2	Steel	-				
		19C.3	Building Reuse	-				
		19C.4	Structural Timber	-				
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	1	1	Awarded - Compliant	Submitted in As Built Round 1 submission package
		20.2	Timber Products	1	1	1	Awarded - Compliant	Submitted in As Built Round 1 submission package
		20.3	Permanent Formwork, Pipes, Flooring, Blinds and Cables	1	1	1	Awarded - Compliant	Submitted in As Built Round 1 submission package
Sustainable Products	To encourage sustainability and transparency in product specification.	21.1	Product Transparency and Sustainability	3	1	1	Awarded - Compliant	Submitted in As Built Round 1 submission package
Construction and Demolition Waste	A. Fixed Benchmark	22A	Fixed Benchmark	1	1	1	Awarded - Compliant	Submitted in As Built Round 1 submission package
		22B	Percentage Benchmark	-				
Total				**12**	**8**	**8**	**0**	

Land Use & Ecology								
Ecological Value	To reward projects that improve the ecological value of their site.	23.0	Endangered, Threatened or Vulnerable Species	-	Complies	Complies	Awarded - Compliant	Previously submitted in Submission Package 1. SV Approved
		23.1	Ecological Value	3	1 8	1.8	Awarded - Compliant	Submitted in As Built Round 1 submission package
Sustainable Sites	To reward projects that choose to develop sites that have limited ecological value, re-use previously developed land and remediate contaminate land.	24.0	Conditional Requirement	-	Complies			Previously submitted in Submission Package 1. SV Approved
		24.1	Reuse of Land	1				Not targeted
		24.2	Contamination and Hazardous Materials	1	1	1	Awarded - Compliant	Submitted in As Built Round 1 submission package
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	0.98	0.98	Not Awarded - Major non-compliance	Submitted in As Built Round 1 submission package. Note partial points proposed to be claimed
Total				**6**	**3.78**	**2.8**	**0.98**	

Emissions								
Stormwater	To reward projects that minimise peak stormwater flows and reduce pollutants entering public sewer infrastructure.	26.1	Stormwater Peak Discharge	1	1	1	Awarded - Compliant	Submitted in As Built Round 1 submission package
		26.2	Stormwater Pollution Targets	1	1	1	Awarded - Compliant	Submitted in As Built Round 1 submission package
Light Pollution	To reward projects that minimise light pollution.	27.0	Light Pollution to Neighbouring Bodies	-	Complies	Complies	Awarded - Compliant	Submitted in As Built Round 1 submission package
		27.1	Light Pollution to Night Sky	1	1	1	Awarded - Compliant	Submitted in As Built Round 1 submission package
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				Not targeted
Refrigerant Impacts	To encourage operational practices that minimise the environmental impacts of refrigeration equipment.	29.0	Refrigerants Impacts	1				Not targeted
Total				**5**	**3**	**3**	**0**	

Innovation								
Innovative Technology or Process	The project meets the aims of an existing credit using a technology or process that is considered innovative in Australia or the world.	30A	Innovative Technology or Process		4		4	Not Awarded - Major non-compliance	1 point - 30A Microbial Control 2 points - 30A Onsite Renewable 1 point - 30A Process Cooling
Market Transformation	The project has undertaken a sustainability initiative that substantially contributes to the broader market transformation towards sustainable development in Australia or in the world.	30B	Market Transformation						Not targeted
Improving on Green Star Benchmarks	The project has achieved full points in a Green Star credit and demonstrates a substantial improvement on the benchmark required to achieve full points.	30C	Improving on Green Star Benchmarks	10	1	1	Awarded - Compliant	1 point - 30C Stormwater (Column B)

Innovation Challenge	Where the project addresses an sustainability issue not included within any of the Credits in the existing Green Star rating tools.	30D	Innovation Challenge		3	3	Awarded - Compliant	1 point - 30D Reconciliation Action Plan 1 point - 30D Financial Transparency 1 point - 30D Incorporation of Indigenous Design
Global Sustainability	Project teams may adopt an approved credit from a Global Green Building Rating tool that addresses a sustainability issue that is currently outside the scope of this Green Star	30E	Global Sustainability		1			1 point - 30E Design for Robustness (BREEAM)
Total				**10**	**9**	**4**	**4**	

TOTAL	TARGETED	AWARDED	TBC
CORE POINTS	45.9	44.0	2.0
INNOVATION POINTS	9.0	4.0	4.0
NA / SCALED POINTS	0.0	0.0	0.0
POINTS AVAILABLE	100.0	100.0	
PROJECT SCORE	54.9	48.0	6.0