



School of Art

BREEAM Credit Tracker

Design Stage

Uncontrolled revision

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1.0 Introduction

This report is intended as a summary of progress against the targeted credits for the following BREEAM assessment:

Project Name	School of Art
BREEAM Version	BREEAM 2014 NC + RFO Combined Bespoke
Assessment Stage	Design Stage
Lead Assessor	Sergey Barekryan
Targeted Score	57.39
Target Rating	Very Good (55%)
Current Score	36.28
Current Rating	Unclassified
Downloaded By	Sergey Barekryan
Download Date	19/05/23
Download Time	9:26:13 (BST)

Please note that this is an uncontrolled copy and is for information only. Formal progress reports will be issued by your licensed assessor at key stages of the project. If you have any queries on the content of this report or the award of any of the credits please contact your licensed assessor as noted above.

Within the report the progress against each credit will be marked as follows:

Red	Not yet started	No information received
Amber	Ongoing	Partial information received OR full credits no longer achievable.
Green	Achieved	All required information received and credit awarded.
Grey	Not targeted	Not targeted.

Minimum Standards

In addition performance against the minimum standards (required for the specified target rating) is summarised below;

Issue	Awarded	Maximum Rating	Met
Man 03 - Responsible construction practices	3	Very Good	✓
Man 04 - Commissioning and handover	1	Outstanding	✓
Man 05 - Aftercare	0	Very Good	✓
Ene 01 - Reduction of energy use and carbon emissions	13	Outstanding	✓
Ene 02 - Energy Monitoring	0	Good	✗
Wat 01 - Water Consumption	2	Outstanding	✓
Wat 02 - Water Monitoring	1	Outstanding	✓
Mat 03 - Responsible Sourcing of Materials	2	Unclassified	✗
Wst 01 - Construction Waste Management	2	Outstanding	✓
Wst 03 - Operational Waste	1	Outstanding	✓

If the required minimum standards are not met then the target rating will not be achieved regardless of overall score.

Numbers after the '+' are exemplary/innovation credits.

2.0 - Credit Summary

	Available	Targeted	Potential	Awarded	Responsibility
Management					
Man 01 Project brief and design	4	2	3	0	Project Manager, Client
Man 02 Life cycle cost and service life planning	4	1	1	0	Cost Consultant, Project Manager
Man 03 Responsible construction practices	6 +1	6	6	3	Cost Consultant, Project Manager, Contractor
Man 04 Commissioning and handover	4	4	4	1	Mechanical Engineer, Electrical Engineer, Cost Consultant, Project Manager, Contractor
Man 05 Aftercare	3 +1	2	2	0	Cost Consultant, Project Manager, Contractor, Client
	21 + 2	15	16	4	
Health & Wellbeing					
Hea 01 Visual Comfort	7 +1	3	3	2	Architect
Hea 02 Indoor Air Quality	5 +2	3	4	1	Mechanical Engineer, Architect
Hea 04 Thermal comfort	3	2	2	1	Energy / Thermal Modelling Consulta, Mechanical Engineer, Architect
Hea 05 Acoustic Performance	3	3	3	0	Acoustician, Project Manager
Hea 06 Safety and Security	1	0	0	0	
	19 + 3	11	12	4	
Energy					
Ene 01 Reduction of energy use and carbon emissions	13.5 +5	12	12	13	Energy / Thermal Modelling Consulta, Mechanical Engineer
Ene 02 Energy Monitoring	2	2	2	0	Mechanical Engineer, Electrical Engineer
Ene 03 External Lighting	1	1	1	1	Electrical Engineer
Ene 04 Low carbon design	3	2	2	2	Mechanical Engineer, Sustainability Consultant
Ene 08 Energy Efficient Equipment	2	2	2	0	Electrical Engineer, Client
	21.5 + 5	19	19	16	
Transport					
Tra 01 Public Transport Accessibility	3	2	2	2	Transport Consultant
Tra 02 Proximity to amenities	1	1	1	1	Transport Consultant, Architect
Tra 03 Cyclist facilities	2	2	2	2	Architect
Tra 04 Maximum Car Parking Capacity	2	0	0	0	Architect
Tra 05 Travel Plan	1	1	1	1	Transport Consultant
	9	6	6	6	
Water					
Wat 01 Water Consumption	5 +1	2	3	2	Architect, Mechanical Engineer
Wat 02 Water Monitoring	1	1	1	1	Mechanical Engineer
Wat 03 Leak Detection	2	2	2	0	Mechanical Engineer
Wat 04 Water Efficient Equipment	1	1	1	1	Architect, Client
	9 + 1	6	7	4	
Materials					
Mat 01 Life Cycle Impacts	6 +1	0	0	0	Civil Engineer, Architect, Project Manager
Mat 03 Responsible Sourcing of Materials	4 +1	2	2	2	Civil Engineer, Architect, Project Manager
Mat 04 Insulation	1	0	1	0	Architect, Mechanical Engineer

Mat 05 Designing for durability and resilience	1	1	1	1	Architect
Mat 06 Material efficiency	1	0	0	0	
	13 + 2	3	4	3	
Waste					
Wst 01 Construction Waste Management	7 +1	2	2	2	Cost Consultant
Wst 02 Recycled Aggregates	1 +1	0	0	0	
Wst 03 Operational Waste	1	1	1	1	Architect
Wst 05 Adaptation to climate change	1 +1	0	0	0	
Wst 06 Functional adaptability	1	0	0	0	
	11 + 3	3	3	3	
Land Use & Ecology					
LE 02 Protection of Ecological Features	1	1	1	1	Ecologist
LE 04 Enhancing site ecology	1	1	1	1	Ecologist
LE 05 Long Term Impact on Biodiversity	2	0	0	0	Ecologist
	4	2	2	2	
Pollution					
Pol 01 Impact of Refrigerants	3	1	2	0	Mechanical Engineer
Pol 02 NOx emissions	3	3	3	0	Mechanical Engineer
Pol 03 Surface Water Run Off	5 +1	2	2	2	Drainage / Flood Risk Consultant, Civil Engineer
Pol 04 Reduction of Night Time Light Pollution	1	1	1	0	Electrical Engineer
Pol 05 Noise Attenuation	1	1	1	0	Acoustician, Mechanical Engineer, Project Manager
	13 + 1	8	9	2	
Innovation					
AI Approved Innovation	1	0	0	0	
	1	0	0	0	

3.0 - Credit Progress Log

		Available	Targeted	Achieved	Action	Status	Information Outstanding / Comments
Management							
Man 01	Project brief and design	4	2	0	Project Manager, Client		Credit 1: Stakeholder consultation (project delivery) Outstanding Requirements: 1, 2, 3, 4. Credit 2: Stakeholder consultation (third party) Outstanding Requirements: 5, 6, 7, 8. Comments: Credit 1 Stakeholder consultation (project delivery) and Can evidence for these credits be provided? The evidence should cover and respond all the BREEAM requirements. Credit 2 Stakeholder consultation (third party) - (Project Manager/Client) Can evidence for these credits be provided? The evidence should cover and respond all the BREEAM requirements.
Man 02	Life cycle cost and service life planning	4	1	0	Cost Consultant, Project Manager		Credit 3: Capital cost reporting Outstanding Requirement: 5. Comments: Credit 3 - Capital cost reporting (Cost Consultant/Project manager) Can an estimate capital cost be provided in pounds per square metre £k/m² in an official format?

Man 03	Responsible construction practices	6 + 1	6	3	Cost Consultant, Project Manager, Contractor	Credit 0: Pre-Requisite Outstanding Requirement: 1. Credit 1: Environmental management Outstanding Requirement: 2. Credit 2: Sustainability Champion (construction) Outstanding Requirements: 5, 6, 7. Credit 3: Considerate construction Outstanding Requirements: 8, 9. Credit 5: Monitoring of construction site impacts - Transport of construction materials & waste Outstanding Requirement: 19. Comments: Credit 1 - Environmental management (Project manager/Contractor?) Can evidence be provided which indicate that the contractor will comply with the BREEAM Environmental management requirements? Contract or commitment letter? Credit 2 - Sustainability Champion (construction) BREEAM AP is just appointed and credit awarded. We can use the contract as evidence or letter from PM/Client as evidence. Credit 3 (2 Credits) - Considerate construction (Project manager/Contractor?) Can evidence be provided that the site will be registered with Considerate construction scheme? Contract requirement or commitment letter could be sufficient for the design stage. Credit 4 (2 Credits) - Monitoring of refurbishment or fit-out-site impacts (Project manager/Contractor?) Can evidence be provided that the site will monitor refurbishment and construction site impacts? Contract requirement or commitment letter could be sufficient for the design stage.
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Man 04	Commissioning and handover	4	4	1	Mechanical Engineer, Electrical Engineer, Cost Consultant, Project Manager, Contractor	Credit 0: Pre-Requisite (Excellent & Outstanding only) Outstanding Requirement: 0. Credit 1: Commissioning and testing schedule and responsibilities Outstanding Requirements: 1, 2, 3, 4. Credit 2: Commissioning building services Outstanding Requirements: 5, 6. Credit 3: Testing and inspecting building fabric Outstanding Requirements: 7, 8. Credit 4: Handover Outstanding Requirements: 9, 10. Comments: Credit 1 - Commissioning and testing schedule and responsibilities (commissioning manager/project manager/contractor?) Can the appointed Commissioning manager provide evidence? Credit 2 - Commissioning building services (commissioning manager/project manager/contractor?) Can the appointed Commissioning manager provide evidence? Evidence is provided from BYA, to be reviewed. Credit 3 - Testing and inspecting building fabric (commissioning manager/project manager/contractor?) Can evidence/commitment be provided that this credit will be targeted? Contract requirement or commitment letter should be sufficient for the design stage. Credit 4 - Handover (commissioning manager/project manager/contractor?) Can evidence/commitment be provided that this credit will be targeted? Contract requirement or commitment letter should be sufficient for the design stage.
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Man 05	Aftercare	3 + 1	2	0	Cost Consultant, Project Manager, Contractor, Client		Credit 2: Seasonal commissioning Outstanding Requirement: 3. Credit 3: Post occupancy evaluation Outstanding Requirements: 4, 5. Comments: Credit 1 - Aftercare support (project manager/contractor?) This credit is currently not targeted. Can this credit be targeted? Credit 2 - Seasonal commissioning (project manager/contractor?) Can evidence/commitment be provided that this credit will be targeted? Contract requirement or commitment letter should be sufficient for the design stage. Credit 3 - Post occupancy evaluation (project manager/client) Can evidence/commitment be provided that this credit will be targeted? Contract requirement or commitment letter should be sufficient for the design stage.
Management score (+exemplary/innovation)		21 + 2	15	4			
Health & Wellbeing							
Hea 01	Visual Comfort	7 + 1	3	2	Architect		Credit 1: Glare control Outstanding Requirements: 1, 2. Credit 2: Daylighting Outstanding Requirements: 3, 4, 5. Credit 4: Internal and external lighting levels, zoning and control Outstanding Requirements: 9, 10, 11, 12, 13, 14, 15. Comments: Credit 3 - Internal and external lighting levels, zoning and control (M&E) Evidence is being discussed with BYA.

Hea 02	Indoor Air Quality	5 + 2	3	1	Mechanical Engineer, Architect		Credit 1: Indoor air quality (IAQ) plan Outstanding Requirement: 1. Credit 3: Volatile organic compound (VOC) emission levels (products) Outstanding Requirements: 6, 7. Credit 5: Potential for natural ventilation Outstanding Requirements: 13, 14. Comments: Credit 1 - Indoor air quality (IAQ) plan (M&E and Architect) The evidence is to be provided. Reviewed with BYA but they don't feel it would be their responsibility. Credit 2 - Ventilation The current design cannot achieve this credit. Credit 5 - Potential for natural ventilation (M&E) Initial evidence reviewed and feedback provided. Additional evidence to be provided by BYA. Response from BYA – The Client has not appointed an approved IAQ Consultant or commissioned a design IAQ plan document.
Hea 04	Thermal comfort	3	2	1	Energy / Thermal Modelling Consulta, Mechanical Engineer, Architect		Credit 1: Thermal modelling Outstanding Requirements: 1, 2, 3, 4, 5. Credit 3: Thermal zoning and controls Outstanding Requirements: 10, 11, 12. Comments: Credit 3 - Thermal zoning and controls (M&E) Initial evidence reviewed and feedback provided. Additional evidence to be provided by BYA.
Hea 05	Acoustic Performance	3	3	0	Acoustician, Project Manager		Credit 1: Acoustic performance Outstanding Requirements: 1, 2, 3. Comments: Credit 1 - Acoustic performance (Project manager / Acoustic consultant) Project manager / Acoustic consultant to provide report as evidence.

Hea 06	Safety and Security	1	0	0			Comments:
Health & Wellbeing score (+exemplary/innovation)		19 + 3	11	4			
Energy							
Ene 01	Reduction of energy use and carbon emissions	13.5 + 5	12	13	Energy / Thermal Modelling Consulta, Mechanical Engineer		Comments:
Ene 02	Energy Monitoring	2	2	0	Mechanical Engineer, Electrical Engineer		Credit 1: Sub-metering of major energy consuming systems Outstanding Requirements: 1, 2, 3, 4. Credit 2: Sub-metering of high energy load and tenancy areas Outstanding Requirement: 5. Comments: Credit 1 - Sub-metering of major energy consuming systems (M&E) Initial evidence reviewed and feedback provided. Additional evidence to be provided by BYA. Credit 2 - Sub-metering of high energy load and tenancy areas (M&E) Initial evidence reviewed and feedback provided. Additional evidence to be provided by BYA
Ene 03	External Lighting	1	1	1	Electrical Engineer		Credit 1: External lighting Outstanding Requirement: 3. Comments:
Ene 04	Low carbon design	3	2	2	Mechanical Engineer, Sustainability Consultant		Credit 1: Passive design - Passive design analysis Outstanding Requirements: 1, 2, 3. Credit 3: Low and zero carbon technologies - LZC feasibility study Outstanding Requirements: 7, 8. Comments:

Ene 08	Energy Efficient Equipment	2	2	0	Electrical Engineer, Client		Credit 1: Energy efficient equipment Outstanding Requirements: 1, 2, 3. Comments: Credit 1 - Energy efficient equipment (M&E) Initial evidence reviewed and feedback provided. Additional evidence to be considered by BYA in conjunction with the client..
Energy score (+exemplary/innovation)		21.5 + 5	19	16			
Transport							
Tra 01	Public Transport Accessibility	3	2	2	Transport Consultant		Comments:
Tra 02	Proximity to amenities	1	1	1	Transport Consultant, Architect		Comments:
Tra 03	Cyclist facilities	2	2	2	Architect		Comments:
Tra 04	Maximum Car Parking Capacity	2	0	0	Architect		Comments: 1 or 2 credits may be available, subject to compliance assessment after required infromation is provided from Reading.
Tra 05	Travel Plan	1	1	1	Transport Consultant		Credit 1: Travel plan Outstanding Requirement: 4. Comments:
Transport score		9	6	6			
Water							
Wat 01	Water Consumption	5 + 1	2	2	Architect, Mechanical Engineer		Credit 1: Water consumption Outstanding Requirements: 3, 4, 5. Comments:

Wat 02	Water Monitoring	1	1	1	Mechanical Engineer		Credit 0: Pre-requisite (Good to Outstanding ONLY) Outstanding Requirement: 0. Credit 1: Water monitoring Outstanding Requirements: 1, 2, 3, 4, 5. Comments: The following information to be provided by BYA: 1. The datasheet(s) of the water meters where it is indicated that each meter (main and sub) has a pulsed or other open protocol communication output to enable connection to an appropriate utility monitoring and management system, e.g. a building management system (BMS). 2. clarification and marked up drawings explaining the metering strategy and how it responds to BREEAM requirements.
Wat 03	Leak Detection	2	2	0	Mechanical Engineer		Credit 1: Leak detection system Outstanding Requirement: 1. Credit 2: Flow control devices Outstanding Requirement: 2. Comments: Credit 1 - Leak detection system (M&E) Initial evidence reviewed and feedback provided. Additional evidence to be provided by BYA. Credit 1 - Leak detection system (Architect, M&E) Initial evidence reviewed and feedback provided. Additional evidence to be provided by BYA and/or Architect.
Wat 04	Water Efficient Equipment	1	1	1	Architect, Client		Credit 1: Water efficient equipment Outstanding Requirements: 1, 2. Comments:
Water score (+exemplary/innovation)		9 + 1	6	4			
Materials							
Mat 01	Life Cycle Impacts	6 + 1	0	0	Civil Engineer, Architect, Project Manager		Comments:

Mat 03	Responsible Sourcing of Materials	4 + 1	2	2	Civil Engineer, Architect, Project Manager		Comments: Credit 0 - Pre-requisite (Project Manager/Contractor) Provide a commitment (or specification) that all timber and timber-based products used on the project will be Legally harvested and traded timber. The commitment can be in the form of contract or letter of commitment. Credit 1 - Sustainable Procurement Plan (Civil Engineer/Project Manager/Contractor) Provide a copy of the Sustainable Procurement Plan. Credit 2 (1 Credit) - Responsible sourcing of materials (Project Manager/Contractor) Provide a commitment (or specification) that at least three of the material types listed in BREEAM manual Table 53 'Material categories' has been responsibly sourced from one of the responsible sourcing schemes. The commitment can be in the form of contract or letter of commitment.
Mat 04	Insulation	1	0	0	Architect, Mechanical Engineer		Comments: Credit 1 - Embodied impact With the current material, this credit cannot be achieved by a small margine. The architect to assess if the credit can be achieved by using insulation materials with less embodied carbon impact.
Mat 05	Designing for durability and resilience	1	1	1	Architect		Credit 1: Protecting vulnerable parts of the building from damage & protecting exposed parts of the building from material degradation Outstanding Requirements: 1, 2, 3, 4, 5. Comments:
Mat 06	Material efficiency	1	0	0			Comments:
Materials score (+exemplary/innovation)		13 + 2	3	3			
Waste							

Wst 01	Construction Waste Management	7 + 1	2	2	Cost Consultant		Credit 3: Construction resource efficiency Outstanding Requirements: 5, 6. Comments: Credit 2 - Reuse and direct recycling of materials (Project Manager/Contractor) A commitment or contract is to be provided showing that waste material types detailed in BREEAM Technical Manual Table 64 are either directly re-used on-site or off-site or are sent back to the manufacturer for closed loop recycling. One credit is achieved where 50% of the total available points for the waste material types detailed in Table 64, that are present on the project have been achieved. Credit 3 (1 credit) - Construction resource efficiency (Project Manager/Contractor) Provide a compliant resource management plan covering the waste arisings from the refurbishment or fit-out project with the aim of minimising waste. For one credit, relevant targets in Technical Manual Table 61 are required to be met.
Wst 02	Recycled Aggregates	1 + 1	0	0			Comments:
Wst 03	Operational Waste	1	1	1	Architect		Credit 1: Operational waste Outstanding Requirements: 1, 2, 3, 4, 5, 6, 7, 8. Comments:
Wst 05	Adaptation to climate change	1 + 1	0	0			Comments:
Wst 06	Functional adaptability	1	0	0			Comments:
Waste score (+exemplary/innovation)		11 + 3	3	3			
Land Use & Ecology							
LE 02	Protection of Ecological Features	1	1	1	Ecologist		Credit 1: Protection of ecological features Outstanding Requirements: 1, 2. Comments:
LE 04	Enhancing site ecology	1	1	1	Ecologist		Credit 1: Ecologist's report and recommendations Outstanding Requirements: 1, 2, 3. Comments:
LE 05	Long Term Impact on Biodiversity	2	0	0	Ecologist		Comments:

Land Use & Ecology score		4	2	2			
Pollution							
Pol 01	Impact of Refrigerants	3	1	0	Mechanical Engineer		Credit 1: Impact of refrigerants Outstanding Requirements: 1, 2, 3, 4, 5, 6, 7. Comments: Credit 0 - Pre-requisite (M&E) All systems (with electric compressors) must comply with the requirements of BS EN 378:2008 1 (parts 2 and 3) and where refrigeration systems containing ammonia are installed, the Institute of Refrigeration Ammonia Refrigeration Systems Code of Practice. Credit 1 (1 credit) - Impact of refrigerant (M&E) We are not achieving this credit at this moment because the specified systems using refrigerants have Direct Effect Life Cycle CO2 equivalent emissions (DELCO 2e) of > 1000 kgCO 2e /kW cooling/heating capacity. Can this credit be achieved by changing the equipment spec? Credit 1 - Leak detection (M&E) Evidence for this leak detection is currently being discussed with BYA.
Pol 02	NOx emissions	3	3	0	Mechanical Engineer		Credit 1: NOx emission levels for heating and hot water Outstanding Requirements: 1, 2. Comments: Credit 1 - NOx emission levels for heating and hot water (M&E) Evidence for this credit is currently being discussed with BYA.
Pol 03	Surface Water Run Off	5 + 1	2	2	Drainage / Flood Risk Consultant, Civil Engineer		Credit 1: Flood resilience Outstanding Requirements: 1, 2, 3, 4, 5, 6. Comments: Credit 2 (2 Credits) - Surface water run-off These credits were lost due to design non-compliant with the BREEAM criteria.

Poi 04	Reduction of Night Time Light Pollution	1	1	0	Electrical Engineer		Credit 1: Reduction of night time light pollution Outstanding Requirements: 1, 2, 3, 4, 5. Comments: Credit 1 - Reduction of night time light pollution (M&E) The evidence for this credit is currently being discussed with BYA.
Poi 05	Noise Attenuation	1	1	0	Acoustician, Mechanical Engineer, Project Manager		Credit 1: Reduction of noise pollution Outstanding Requirements: 1, 2, 3, 4, 5. Comments: Credit 1 - Reduction of noise pollution (Acoustic Consultant/project manager) A complaint a noise impact assessment report to be provided confirming that this credit can be achieved if recommendations of the report followed.
Pollution score (+exemplary/innovation)		13 + 1	8	2			
Innovation							
AI	Approved Innovation	1	0	0			Comments:
Innovation score		1	0	0			