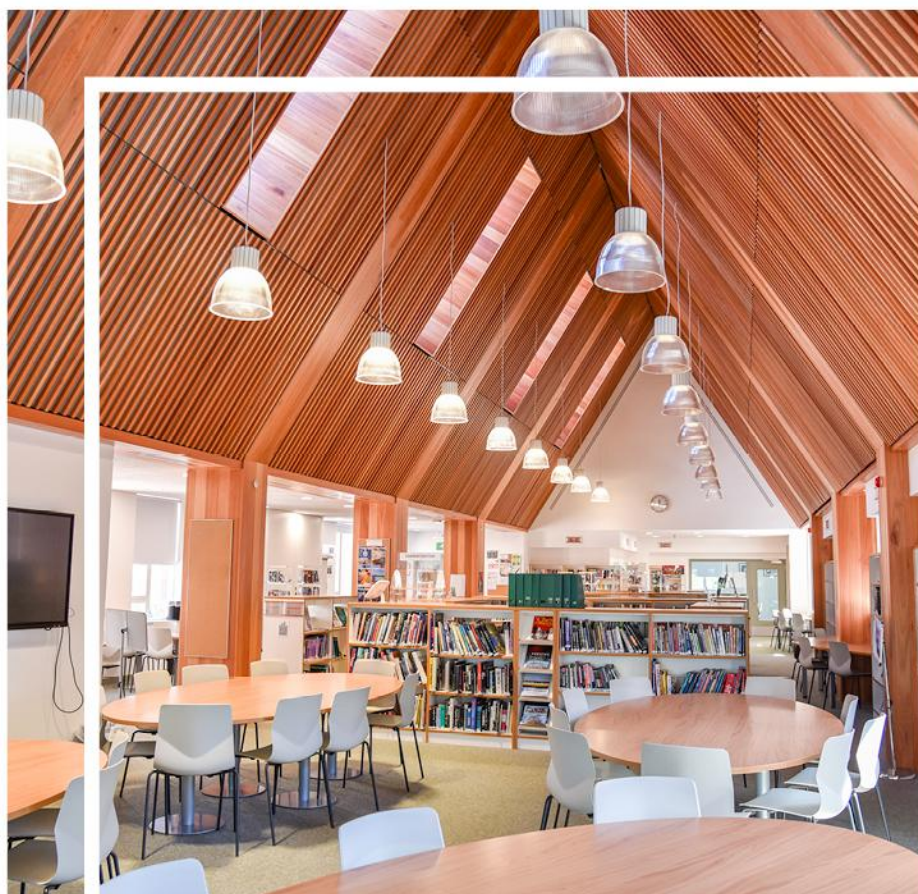




Thames Valley Park Data Centre

BREEAM Report

Tyréns Hilson Moran | On Behalf of FH Trustees
Revision P03 | September 2026



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Thames Valley Data Centre
BREEAM 2010 Data Centre Pre assessment
38532-HML-XX-XX-RP-V-960001

15 September 2026

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Executive Summary

Hilson Moran has been commissioned by BCS on behalf of FH Trustees to provide BREEAM assessment services for the proposed development at Microsoft Campus, Thames Valley Park, Reading, RG6 1WG.

This report forms the basis of a strategy for the Thames Valley Park Data Centre to achieve an Excellent rating under the SD5068 BREEAM Data Centres 2010 scheme for this speculative data centre assessment. The targeted rating has been set by Wokingham Borough Council as a planning requirement.

Hilson Moran Sustainability team met with the design team on 29th April 2026 on Teams to undertake the BREEAM Pre-Assessment workshop. Following the BREEAM Pre-Assessment workshop the targeted score for the Thames Valley Data Centre is 74.09% which equates to an Excellent rating with all mandatory rating criteria targeted.

Hilson Moran recommends that additional credits are targeted from the potential credits, where possible, to ensure that the development has a 4 to 6% margin above the minimum required to achieve the desired rating. Achieving all of the credits considered to be targeted, Targeted and the Potential credits would result in a final BREEAM score of 79.17% and a final rating of Excellent.

It is the design team’s responsibility to ensure that compliant evidence is provided for all relevant BREEAM criteria, in the format prescribed. This will enable the assessor to submit the evidence for a quality assurance review by the BRE prior to issue of a certificate.

Priority 1: additional credits to take into account which can be achieved by having minor improvements on the current scheme without significant cost impact.

Priority 2: credits to be taken into account if required. These may have substantial impact on the project cost.

	Targeted (T)	Potential
Expected BREEAM Score	74.09%	79.17%
Expected BREEAM Rating	Excellent	Excellent

	Credits Available	Targeted	Potential	Difficult / Not achievable
MANAGEMENT	12	12		
HEALTH & WELLBEING	13	10	2	1
ENERGY	25	14	1	10
TRANSPORT	10	4		6
WATER	8	7		1
MATERIALS	15	12	1	2
WASTE	7	4		3
LAND USE AND ECOLOGY	10	8	1	1
POLLUTION	11	8		3
INNOVATION	10	4	1	5
Total	121	83	89	
Final Weighted Score		74.09%	79.17%	
Predicted BREEAM Rating		Excellent	Excellent	

Note: only a maximum of 10 innovation credits can be awarded.

1. Introduction

1.1. Background

Hilson Moran has been commissioned by BCS on behalf of FH Trustees to provide sustainability consultancy and advice to the project team responsible for the design of the Thames Valley Park Data Centre.

As part of this role Hilson Moran has prepared a strategy to enable the proposed data centre to achieve an Excellent rating based on the 2010 Data Centre Scheme.

The Site currently contains three office buildings formerly occupied by Microsoft as part of their long-established presence at Thames Valley Park. Microsoft have already vacated two of the three buildings, and while they retain a lease on the remaining building, they are not fully occupying it. Microsoft has confirmed that they do not intend to remain on the campus and will vacate entirely at the expiry of their lease in December 2027.

The surrounding area is characterised by commercial, residential, and transport infrastructure uses, including rail and road corridors.

Office buildings are located immediately north and west of the site. Further north are the River Thames and Thames Valley Park Nature Reserve.

East of the site is an open, unvegetated area used for agricultural purposes (Sonning Meadows) and residential areas further afield. Immediately south of the site is a railway line, and beyond the railway is a residential area and the Reading substation.

The data centre will be 3 storey, with ground, 1st and 2nd as data halls. Externally on the roof of the data centre will be packaged plant rooms containing pumps, controls, and electrical distribution equipment. Above the packaged plantrooms will be a gantry supporting the air cooled chiller plant. These roof plant levels will be fully screened. The 72MW IT data load will be divided between 12 data halls, each of 6MW IT.

The building has been registered under the BREEAM Data Centre 2010 scheme, the registration number is BREEAM 0143-2251.

1.2. Purpose

This document is intended to inform, and provide the basis for, detailed discussions regarding the current design proposals and the credits to be targeted to achieve the desired BREEAM rating for the building. All information contained within this document is based on the finalised BREEAM 2010 Data Centre scheme which was updated on the 25 May 2010.

A credit summary is listed in Section 3.2 for initial guidance. It is the responsibility of the design team to provide the assessor with the appropriate evidence to demonstrate compliance with the credit criteria.

1.3. BREEAM Data Centres 2010

BREEAM Data Centres can be used to assess buildings that consist predominantly of data halls with associated function areas (where present).

Data halls

Typically any space containing banks of data storage equipment (i.e. servers), plus any associated support spaces (e.g. switch rooms, UPS rooms, battery rooms). The primary function of the building must be the physical or virtual storage, management, and dissemination of data and information. The data halls and any related plant space should make up a significant majority (>75%) of the floor area of the building. Where this is not the case advice can be sought from BRE Global on the use of this scheme.

Other associated function areas

The following building functions/spaces can be included in the BREEAM Data Centres assessment where provided for the purposes of operating the data centre or for the use of staff running the facility:

- Reception and waiting areas
- Office areas (including meeting and training rooms)
- Workshops
- Staff restaurant and/or kitchen facilities
- Staff gym
- Storage and waste management areas
- Restrooms, WCs and changing facilities
- Ancillary areas e.g. plant room, circulation space

Issues are filtered in the assessment depending on the proportion of associated function areas. The Thames Valley Data Centre has a large associated function area, in excess of 1,500m², the BRE have been contacted regarding this and have confirmed that the scoring tool for data centres with large associated function areas should be selected for this project.

1.5. Recent Workshops

Hilson Moran Sustainability met with the project team on the 29th April 2026 on Teams to review the current design and to set out a strategy to achieve the BREEAM Data Centres targeted rating. The workshop was attended by:

Table 1 BREEAM workshop attendees

Name	Company	Job Role
Jon Moore	Hilson Moran	MEP
Evie Treanor	BCS Consultancy	Project Manager
Chris Painter	Twelve Architects	Architect
Matt Cartwright	Twelve Architects	Architect
Rose Gibbon	Hilson Moran	Ecologist
Emma Flower	Hilson Moran	BREEAM Assessor & AP

2. BREEAM Data Centres Early-Stage Credits

The table below summarises the credits in BREEAM 2010 Data Centres that have an early-stage requirement. The design team should ensure the requirements at the relevant stage are met to ensure credits are not lost as the design progresses.

Table 2 Early-stage credits and respective progress

Credit Title	No. of Credits	RIBA Work Stage	Action By / Status	Current progress
Management				
MAN 01 Commissioning	1	RIBA 4	Developer	To be appointed after planning
Man 08 Security	1	RIBA 2	Project manager	Police ALO has been consulted about the scheme
MAN 12 Elemental life cycle cost (LCC)	2	RIBA 2 & 4	Cost Consultant	This will be done after planning
Energy				
ENE 05 Low zero carbon (LZC) feasibility study	1	RIBA 2	Building physics consultant	Mandatory for Excellent
Transport				
TRA 05 Travel plan	2	RIBA 2	Transport consultant	PM confirmed this will be developed
Land use and Ecology				
LE 03 Ecological value of site and protection of ecological features	1	RIBA 1	Ecologist	Ecological survey has been completed
LE 04 Mitigating ecological impact	1	RIBA 2	Ecologist	Ecological survey has been completed
LE 05 Enhancing site ecology	1	RIBA 2	Ecologist	Ecological survey has been completed

3. Initial Assessment against BREEAM Data Centre 2010 Criteria

3.1. BREEAM 2010 Data Centres Minimum Standards

BREEAM 2010 Data Centres Minimum Standards.

Table 3 Minimum standards for BREEAM 2010 Data Centre scheme

BREEAM Credit	Percentage and number credits required to meet minimum standards					Status
	Pass ≥30 - <45%	Good ≥45 - <55%	Very Good ≥55 - <70%	Excellent ≥70 - <85%	Outstanding ≥85%	
Man 01 - Commissioning	1	1	1	1	2	
Man 02 – Considerate Constructors	-	-	-	1	2	
Man 04 – Building User Guide	-	-	-	1	1	
Hea 04 – High Frequency Lighting	1	1	1	1	1	
Hea 12 – Microbial contamination	1	1	1	1	1	
Ene 01 - Reduction of CO ₂ Emissions	-	-	-	6	10	
Ene 02 – Sub-metering of substantial energy uses	-	-	1	1	1	
Wat 01 - Water Consumption	-	1	1	1	2	

BREEAM Credit	Percentage and number credits required to meet minimum standards					Status
	Pass ≥30 - <45%	Good ≥45 - <55%	Very Good ≥55 - <70%	Excellent ≥70 - <85%	Outstanding ≥85%	
Wat 02 - Water Meter	-	1	1	1	1	
Wst 03 – Storage of recyclable waste	-	-	-	1	1	
LE 04 – Mitigating ecological impact	-	-	1	1	1	

3.2. Pre-assessment: Summary credit list

The following table summarises the target credits for the project.

All credits in the Targeted column are targeted and are included into the Stage 2 design.

The credits in the 'Potential' column will need to be monitored closely as they could be affected by the RIBA Stage 3 and 4 design.

The design team should be aware that above score is subject to change:

Table 4 Project Credit target schedule.

Credit Code	Credit Title	Credits Available	Targeted	Potential	Difficult	Action Lead	Stage	Notes
MANAGEMENT		Credit weight=	1.0%					
MAN 01	Commissioning	2	2			Client / Contractor	Stage 4	1 st credit is mandatory for any rating. An appropriate team member must be appointed to monitor commissioning and ensure it is carried out in accordance with best practice. Second credit is for appointing contractor to carry out seasonal commissioning
MAN 02	Considerate Constructors	2	2			Contractor	Stage 4-5	1 credit is mandatory for Excellent rating. To be included in contractor's prelims, contractor to sign up to Considerate Constructors Scheme and target best practice scores in the scheme.
MAN 03	Construction Site Impacts	4	4			Principal Contractor	Stage 4-5	To be included in contractor's prelims. Contractor is to monitor and set targets for energy, transport and water use on site. Implement best practice pollution prevention. Operate an EMS, and an environmental materials policy & responsibly and legally source site timber.

Credit Code	Credit Title	Credits Available	Targeted	Potential	Difficult	Action Lead	Stage	Notes
Man 04	Building User Guide	1	1			Principal Contractor	Stage 5	Mandatory for an Excellent rating. Contractor to produce simple non-technical building user guide for tenants and non-technical building managers on operation and environmental performance.
MAN 08	Security	1	1			Client	Stage 2	An architectural liaison officer or crime prevention design advisor is consulted during Stage 2. ALO has been contacted for the project.
MAN 12	Life Cycle Costing	2	2			Cost Consultant	Stage 2 & 4	This is to be carried out after planning based on Stage 2 cost plan
HEALTH & WELLBEING		credit weight =	0.77%					
HEA 01	Daylighting	1		1		Sustainability Consultant / Architect	Stage 3/4	This would apply to office support areas, it is not currently targeted but could potentially be as the support building is shallow.
HEA 02	View Out	1	1			Architect	Stage 2/3	Office support areas will be designed to meet the view out requirements
HEA 03	Glare control	1	1			Architect		Blinds to be provided in occupied areas to prevent glare
HEA 04	High Frequency Lighting	1	1			Architect	Stage 3/4	Mandatory for any rating, although this is less relevant now as lighting to be LED

Credit Code	Credit Title	Credits Available	Targeted	Potential	Difficult	Action Lead	Stage	Notes
HEA 05	Internal & External Lighting levels	1	1			Electrical Engineer / Lighting Designer	Stage 3-4	Internal & external lighting is designed in accordance with the appropriate maintained Lux levels recommended by CIBSE.
HEA 06	Lighting Zones and Controls	1	1			Electrical Engineer / Lighting Designer	Stage 3-4	Lighting in all relevant building areas is appropriately zoned and controlled.
HEA 07	Potential for Natural Ventilation	1			1	Mechanical Engineer / Architect	Stage 2-3	Fresh air is capable of being delivered to the occupied areas via natural ventilation, and there is sufficient user control of fresh air supply. This is not targeted.
HEA 08	Indoor Air Quality	1	1			Mechanical Engineer	Stage 2-3	Where air intakes serving occupied areas avoid major sources of external pollution and recirculation of exhaust air.
HEA 09	Volatile Organic Compounds	1			1	Architect / Contractor	Stage 3-5	Emissions of VOCs and other substances for key finishes and fittings comply with best practice levels
HEA 10	Thermal Comfort	1	1			Sustainability Consultant	Stage 3-4	Thermal comfort levels in occupied areas of the building re assessed at design stage to evaluate appropriate servicing options ensuring appropriate thermal comfort levels are achieved
HEA 11	Thermal Zoning	1	1			Mechanical Engineer	Stage 3-4	Local occupant control is available for temperature adjustment in each occupied space to reflect differing user demands.
HEA 12	Microbial Contamination	1	1			Public Health Engineer	Stage 3-4	This is a mandatory credit for any rating. The risk of waterborne and airborne legionella contamination must be minimised.
HEA 13	Acoustic Performance	1	1			Acoustician	Stage 3-4	The building is to achieve appropriate indoor ambient noise levels In office areas.
ENERGY		credit weight =	1.48%					

Credit Code	Credit Title	Credits Available	Targeted	Potential	Difficult	Action Lead	Stage	Notes
ENE 01	Reduction of CO ₂ Emissions	15	7		8	M&E Engineer	Stage 2-4	6 credits are mandatory for Excellent. Credits awarded based on PUE and office EPC.
ENE 02	Sub-Metering of Substantial Energy Uses	2	2			M&E Engineer	Stage 3-4	Mandatory for Very Good rating. The metering will be designed to comply with these requirements. Direct submetering of energy uses is required, along with BMS connection to sub meters.
ENE 04	External Lighting	1	1			M&E Engineer / Lighting designer	Stage 3-4	Energy efficient external lighting to be provided and controlled for the presence of daylight
ENE 05	Low & Zero Carbon Technologies	3	1		2	Architect M&E Engineer	Stage 2	1 credit is mandatory for Excellent. 1 credit is achieved for the production of a LZC report during Stage 2. The second and third credits are not achievable, as they require a 10% or 15% reduction of CO ₂ emissions as a result of the LZC technology, which is not feasible.
ENE 08	Lifts	2	2			VT Consultant	Stage 3-4	Energy efficient lifts to be installed in accordance with BREEAM requirements
ENE 22	Sustainable Procurement of IT	2	1	1		Client	Stage 4	Up to 2 credits available where energy efficient equipment has been procured to help ensure optimum performance and energy savings – to be investigated.
TRANSPORT		credit weight =	0.5%					
TRA 01	Provision of Public Transport	3			3	Client	Stage 1	Up to 3 credits are awarded based on a sliding scale of compliance based on the accessibility of public transport. Not achievable on this site.

Credit Code	Credit Title	Credits Available	Targeted	Potential	Difficult	Action Lead	Stage	Notes
TRA 02	Proximity to Amenities	1			1	Client	Stage 1	Where the building is located within 500m walk of accessible local amenities. Not achievable on this site.
TRA 03	<i>Cyclist Facilities</i>	2	2			Architect	Stage 2-3	One credit where there is compliant cycle storage for building users. “ credits where in addition to storage, cyclist facilities such as showers, lockers and changing are provided.
TRA 04	Pedestrian and Cycle Safety	1	1			Architect	Stage 2-3	The site layout is to be designed to ensure safe and adequate pedestrian and cyclist access.
TRA 05	Travel Plan	1	1			Transport Consultant	Stage 2	A travel plan is to be developed during Stage 2 for the project – this will be produced as part of Planning application.
TRA 06	Maximum Car Parking Capacity	2			2	Architect	Stage 2-3	One credit if no more than 1 car parking space is provided for every 3 building users, 2 credits where there is one space for every 4 users. This is not currently targeted.
WATER		credit weight =	1.06%					
WAT 01	Water Consumption	3	3			Architect	Stage 3-4	One credit is mandatory for Very Good. The consumption of water in sanitaryware and cooling is minimised by using water efficient fittings, systems and technologies.
WAT 02	Water Meter	1	1			Public Health Engineer	Stage 3	Once credit is mandatory for Very Good. A pulsed output water meter is to be installed on the main incoming water supply.
WAT 03	Major Leak detection system	1	1			Public Health Engineer	Stage 3	A leak detection system is specified on the main water supply to the building.

Credit Code	Credit Title	Credits Available	Targeted	Potential	Difficult	Action Lead	Stage	Notes
WAT 04	Sanitary Supply Shut Off	1	1			Public Health Engineer	Stage 3	To achieve the credit, proximity detection shut-off is provided on the water supply to all toilets.
WAT 05	Water Recycling	1			1	Public Health Engineer	Stage 3	Credit is achieved for the provision of rainwater or greywater for WC / urinal flushing. This is not proposed in this building.
WAT 06	Irrigation Systems	1	1			Landscape Architect	Stage 3-4	Credit is awarded for the provision of a low water use irrigation system, or where planting and landscaping is watered via rainwater or reclaimed water. Credit is targeted.
MATERIALS		credit weight =	0.46%					
MAT 01	Material Specification (Major Building Elements)	6	6			Architect	Stage 3-4	The architect has reviewed the Green Guide ratings of some typical building elements, and it is achieving 6 credits currently.
MAT 02	Hard Landscaping and Boundary Protection	1	1			Architect / Landscape Architect	Stage 3-4	This is based on the Green Guide to Specification for and hard landscaping or boundary protection. Credit is targeted.
MAT 03	Reuse of Building Façade	1			1	Client / Architect	Stage 1	This is note possible for this building
MAT 04	Reuse of Building Structure	1			1	Client / Architect	Stage 1	This is note possible for this building

Credit Code	Credit Title	Credits Available	Targeted	Potential	Difficult	Action Lead	Stage	Notes
MAT 05	Responsible Sourcing of Materials	3	1		2	Architect / Contractor	Stage 3-5	Up to 3 credits are available based on the proportion of materials in the building which are responsibly sourced. All timber must be legally sourced.
MAT 06	Insulation	2	2			Architect / Services Engineer	Stage 3-4	One credit is available for the selection of insulation materials with a good Green Guide to Specification rating. The second credit is for responsibly sourcing insulation materials. Both credits are targeted.
Mat 07	Designing for Robustness	1	1			Architect	Stage 3-4	Designing the building to resist damage from daily use. This credit is targeted.
WASTE		credit weight =	0.64%					
WST 01	Construction Site Waste Management	4	2		2	Principal Contractor	Stage 5	Requirements to be included in the contractor's prelims. Up to 3 credits available for amount of waste produced per 100m ² of building areas. One credit is targeted, One credit available for reducing the amount of non-hazardous waste sent to landfill – this credit is targeted.
WST 02	Recycled aggregates	1	1			Principal Contractor	Stage 4-5	Aggregates should be over 25% recycled and secondary aggregate either from on site, or from within 30km of the site.
WST 03	Recyclable Waste Storage	1	1			Architect	Stage 3-4	Mandatory for Excellent. Provide adequately sized bin store with space for the segregation of different waste streams
WST 04	Compactor / Baler	1			1	Architect	Stage 3-4	Not thought to be required for this building.
LAND USE AND ECOLOGY		credit weight =	0.6%					

Credit Code	Credit Title	Credits Available	Targeted	Potential	Difficult	Action Lead	Stage	Notes
LE 01	Re-use of Land	1	1			Client	Stage 1	The site is previously developed, so this will be achieved.
LE 02	Contaminated Land	1			1	-	Stage 1-2	The site is not thought to be contaminated, credit not available.
LE 03	Ecological Value of Site and Protection of Ecological Features	1	1			Ecologist	Stage 2	Ecological survey has been carried out, it is intended to target this credit.
LE 04	Mitigating Ecological Impact	2	2			Ecologist	Stage 2	One credit is mandatory for Excellent. 2 credits are targeted, and are achieved where there is no negative change in the site's ecological value.
LE 05	Enhancing Site Ecology	3	2		1	Ecologist / Landscape Architect	Stage 3-4	Ecologist to make recommendations to enhance the site ecology, 2 credits are available if there is a positive increase in site ecological value.
LE 06	Long Term Impact on Biodiversity	2	2			Ecologist / Contractor	Stage 4-5	Two credits can be awarded where there is a commitment to achieve the mandatory credits, and at least 4 of the additional criteria.
POLLUTION		credit weight =	0.91%					
POL 01	Refrigerant GWP – Building Services	1				M&E Engineer	Stage 3-4	The use of refrigerants with a GWP of less than 5 is required. This is unlikely to be achieved
POL 02	Preventing Refrigerant Leaks	2	2			M&E Engineer	Stage 3-4	First credit is available for leak detection, the second credit is available for automatic pump down of refrigerant.

Credit Code	Credit Title	Credits Available	Targeted	Potential	Difficult	Action Lead	Stage	Notes
POL 04	Nox Emissions from Heating Source	2			2	M&E Engineer	Stage 3	One credit where NOx emissions are below 70mg/kWh dry Nox at 0% excess O ₂ . Two credits where they are below 40mg/kWh. These credits cannot be achieved as the building will be electrically heated.
POL 05	Flood Risk	3	3			Flood Risk Consultant	Stage 2-3	Two credits where the site is at low risk of flooding One credit where surface water attenuation measures are specified to minimise the risk of localised flooding, resulting from a loss of flood storage on site due to development. These credits are targeted.
POL 06	Minimising Watercourse Pollution	1	1			Drainage Engineer	Stage 3-4	One credit where SUDS or oil separators have been specified in areas which could be a source of watercourse pollution.
POL 07	Reduction of Nighttime Light Pollution	1	1				Stage 4	Outdoor lighting is to be installed in accordance with the ILE guidance Notes for the Reduction of Obtrusive Light. This credit is targeted.
POL 08	Noise Attenuation	1	1			Acoustician	Stage 3-4	New building services plant will not cause noise nuisance for neighbours of the site. This credit is targeted.
Innovation		credit weight =	1.00%					

Credit Code	Credit Title	Credits Available	Targeted	Potential	Difficult	Action Lead	Stage	Notes
MAN 02	Considerate Constructors	1	1			Contractor	Stage 5	Where exemplary levels of compliance are achieved in the CCS, this will be included in the contractor's prelims
HEA 01	Daylighting	1			1	Architect	Stage 3	At least 80% of the floor area of the relevant areas has an average daylight factor of 3%
ENE 01	Reduction of CO ₂ Emissions	2			2	M&E Engineer	Stage 3-4	One credit where the building has a predicted PUE of <1.2 and an EPC of 25 or less. Two credits where the predicted PUE is <1.0 and an EPC of 25 or less. These credits are not achievable.
ENE 05	LZC Technologies	1			1	M&E Engineer	Stage 3-4	A local LZC technology is installed which results in a 20% reduction in the building's Co2 emissions. This credit is not targeted.
WAT 01	Water Consumption	1			1	PH Engineer	Stage 3-4	A technology / strategy is shown to reduce the overall consumption associated with the cooling process by 80%.
WAT 02	Water Meter	1	1			PH Engineer	Stage 3-4	Where sub-meters are installed on individual water consuming plant or building areas, the meters need to be pulsed output and connected to BMS. This can be targeted.
MAT 01	Materials Specification	1			1	Architect	Stage 3-4	Where assessing four of more applicable building elements, the building achieves at least 2 additional points over what is required to achieve 6 credits. This is not thought to be achievable for this project
MAT 05	Responsible Sourcing of Materials	1			1	Contractor	Stage 4-5	Where 85% of applicable materials have been responsibly sourced. This credit is not targeted.

Credit Code		Credit Title	Credits Available	Targeted	Potential	Difficult	Action Lead	Stage	Notes
WAT 01		Construction Site Waste Management	1			1	Contractor	Stage 5	Exemplary levels of resource efficiency are achieved during construction. This credit is not targeted.
Innovation		BREEAM AP	1	1			Client	Stages 1-5	A BREEAM AP is involved and advising on the project throughout the project stages. This credit is targeted.
			Score	74.09%	79.17%				
			Targeted Rating	Excellent	Excellent				

APPENDIX B – GENERAL BREEAM GUIDANCE

BREEAM aims to assess many aspects of a project, from the initial decisions taken by clients and architects, through the detail of engineering design, to the policies and agreements reached by prospective tenants and building owners.

Minimum standards have been set for various credits that must be achieved if certain rating levels are to be achieved. Significant minimum standards need to be met to achieve an 'Excellent' rating. These will be identified throughout the report and will be shown in bold red text. Formal certification cannot be achieved until this assessment is completed and submitted to BREEAM for approval.

BREEAM V6.1 allows additional credits outside of the core BREEAM credits to be achieved by demonstrating innovation within the building. This may be by exceeding a current credit requirement, or by developing a new credit and demonstrating that the innovation proposed by the design team will make a positive contribution to one of 20 criteria determined by BREEAM. Innovation credits that are available for exceeding the standard credit requirements will be described in bold blue text.

The BREEAM assessment is carried out by awarding credits for environmental improvement on each of the issues. Each credit awarded must be supported by full evidence in the form of details documented in the design drawings and specification. There are now additional Innovation Credits available as recognition for buildings that either meet exemplary performance standards for an existing BREEAM credit or for a particular building feature, system or process that is exemplary. This is determined by the BRE on a case by case basis. An additional 1% can be awarded for each innovation credit achieved, up to a maximum of 10%.

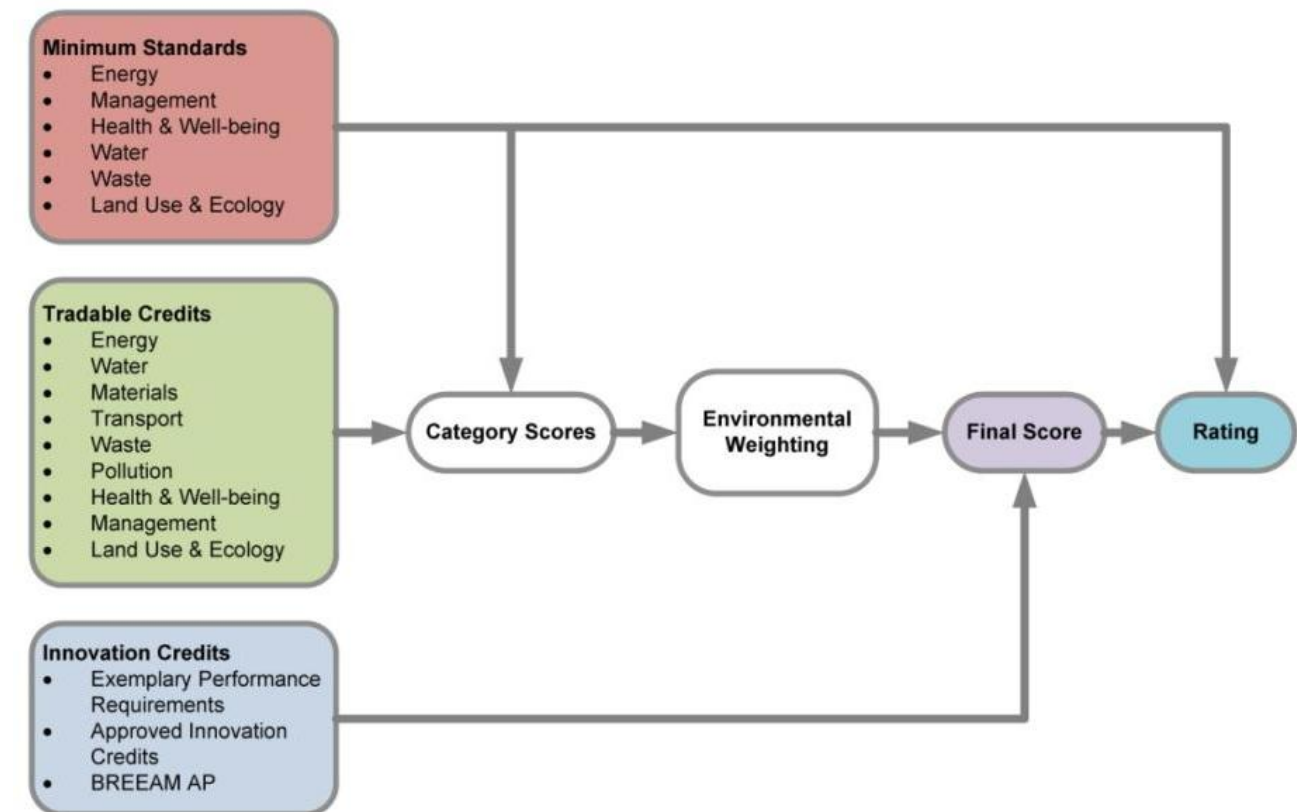
On submission and successful QA of the Design Stage Assessment, an interim BREEAM rating is awarded to the development. The development is then assessed again at Post Construction stage upon successful submissions and QA of this report, the final BREEAM rating is awarded by the BRE. BREEAM V6.1 also includes an optional Post-occupancy stage certification.

Hilson Moran can make no warranty in respect of BREEAM predictions, as all credits are dependent on supporting evidence being provided to the BREEAM assessor at the time of the formal BREEAM assessment. Until a formal BREEAM assessment takes place, with supporting evidence provided to a certified BREEAM Assessor and the BRE complete their quality assurance process, no building can claim to hold a BREEAM rating.

BREEAM Assessment Process

The BREEAM assessment process awards a number of credits depending upon whether or not sufficient evidence can be provided to demonstrate that the BREEAM requirements have been fulfilled. One of the strengths of the BREEAM Assessment process is that it examines the performance of a development over a wide range of issues. These issues are weighted according to their perceived importance, with the credits in some sections being more valuable than others. In order to standardise the BREEAM Assessment process there are a number of issues that are common to all building types.

Within these common credits there are a number of mandatory minimum performance requirements that all building types need to achieve in order to secure a particular rating. The remaining credits are tradable and give the design team the flexibility to choose which credits to target in order to achieve a particular rating. The requirements of individual credits vary considerably, both between credits and between schemes.



BREEAM Scoring Process

The BREEAM Assessment process is split into three four stages:

- 1) Pre-Assessment;
- 2) Design Stage Assessment;
- 3) Post Construction Review; and
- 4) Post-Occupancy Stage (Optional).

The Pre-Assessment stage allows the design team to ascertain the likely BREEAM score and rating a development can achieve and to provide a strategy for the credits to be targeted and to support the later stages of the assessment process. The Design Stage Assessment builds on the Pre-Assessment strategy and is undertaken just before tender and or work begins on site. At this stage the design should be sufficiently detailed to demonstrate that all of the targeted credit requirements have been fulfilled. Following completion of the design stage the assessment can be submitted to the BRE for interim certification.

The Post Construction Review is intended to verify that the commitments made at the design stage have been implemented. The performance of the development in the post construction review will dictate the final score and rating the building achieves.

At all times throughout the assessment process the assessor is reliant upon receiving accurate and comprehensive evidence from the design team in a timely manner. When preparing evidence the design team should bear in mind that the QA personnel at the BRE are not necessarily technically minded and have no knowledge of the project. The evidence provided by the design team should clearly show (through annotation, sketches, calculations etc.) to a non-technical individual that the credit requirements have been met. Where necessary any confirmation statements should quote relevant credit criteria to demonstrate that the requirements have been met.

The optional post-occupancy stage certification relates to robust best practice to meet design aspirations in the following areas:

- Post occupancy handover and commissioning processes
- Performance monitoring
- Actions undertaken post occupancy to understand and manage the actual performance of the building.

BREEAM Threshold

BREEAM ratings range between ‘Pass’ and ‘Outstanding’. The rating achieved is dependent on the percentage score achieved and achieving the required minimum standards appropriate to each rating level. Percentage thresholds and minimum standards (number of credits to be achieved within the specified minimum standard credits) are given in Table 5:

Table 5 BREEAM V6.1 New Construction Ratings

BREEAM Rating	% Score	BREEAM Rating	% Score
Unclassified	<30	Very Good	≥55
Pass	≥30	Excellent	≥70
Good	≥45	Outstanding	≥85



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