BREEAM New Construction Pre-Assessment

Big Yellow Self Storage - Alpha House, 24-27 Regis Road, Kentish Town

August 2022

Report produced by –

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Revision	Notes	Prepared by	Reviewed by	Date
1.0		Elise Kidd	Ian Bacon	25/05/2022
2.0	Updated following receipt of specialist reports	Elise Kidd	Ian Bacon	27/05/2022
3.0	Updated following meeting with design team	Elise Kidd	Ian Bacon	14/06/2022
4.0	Minor amendments	Elise Kidd	Ian Bacon	01/08/2022

CONTENTS

1 Blewburton Limited

Blewburton Limited (BBL) was established in April 2016 and are the follow-on company to The Blewburton Partnership (BBP) which was established in 2008 to provide energy and sustainability consultancy to clients in both the private and public sectors. Staffing has since increased and all employees have been involved in the project management, assessment and consulting on projects involving renewable and sustainable energy for over twenty years, both with BBL, BBP and in former employment.

BBL is well placed to analyse and assess the potential for low and zero carbon energy technologies to contribute towards the energy mix and the offset of carbon emissions associated with new developments. We can help to determine the most cost effective and technically appropriate means of meeting the sustainable energy requirements relating to planning conditions and policies in whichever format the Local Planning Authority requires as part of their general policy.

BBL are also licensed Elmhurst SAP, BREEAM, HQM & Code for Sustainable Homes assessors.

2 Executive Summary

Big Yellow are proposing to redevelop the site and construct a self-storage facility (Use Class B8) and flexible office space (Use Class E(g)(i)), together with vehicle and cycle parking and landscaping. The London Borough of Camden's Local Plan Policy CC2(h) requires non-domestic developments of 500m2 of floorspace or above to achieve 'excellent' in BREEAM assessments. In addition to the storage units there will be flexi-office space, a reception, sanitary and welfare facilities located on the ground floor. The building will be fully fitted, therefore the BREEAM assessment will reflect this.

Having assessed the development against the BREEAM New Construction 2018 criteria it has been determined that an Excellent rating is feasible, with a score of 75.37% and all BREEAM Excellent mandatory credits being targeted. The pre-assessment report demonstrates how this will be achieved.

3 Introduction

3.1 The site

Blewburton Limited have been commissioned to carry out a BREEAM New Construction assessments for the new Big Yellow Storage Unit in Kentish Town. Big Yellow are proposing to redevelop the site and construct a self-storage facility (Use Class B8) and flexible office space (Use Class E(g)(i)), together with vehicle and cycle parking and landscaping. The building will be fully fitted, therefore the BREEAM assessment will reflect this.

3.2 BREEAM registration

It is proposed that the development will be assessed as fully fitted under BREEAM Industrial New Construction 2018, which is the current version of BREEAM.

3.3 Report Objectives

This report aims to determine which credits can realistically be targeted based on the proposed development.

This study will enable the design team to influence the development moving forward and understand the BREEAM requirements.

This report is also intended to demonstrate to the LPA how BREEAM Excellent will be achieved.

3.4 Methodology

This study will investigate the achievable and appropriate sustainable measures that are to be incorporated into the development.

The approach that has been taken in this study is as follows:

- Review of available documentation and preparation of an initial credit strategy.
- Discussion with the design team regarding the overall development and the scope of the BREEAM assessment.
- Finalisation of the credit strategy.

Results presented are indicative of the potential performance of the assessed buildings. This is not a formal BREEAM assessment for certification.

4 BREEAM New Construction 2018

4.1 What is BREEAM?

BREEAM is an environmental performance standard against which buildings can be assessed and compared. The building is assessed against a range of criteria falling into the following categories:

- Management
- Health & Wellbeing
- Energy
- Transport
- Water
- Materials
- Waste
- Land Use & Energy
- Pollution
- Innovation

Each criterion within these sections has requirements which when met allows credits to be awarded.

4.2 BREEAM Scores and ratings

Weightings are applied to the credits achieved to give a score which is then totalled to give an overall percent. Rating benchmarks are shown in Table 1.

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

Table 1 – BREEAM ratings

All BREEAM certified buildings are going above and beyond Building Regulations, therefore even a Pass rating is an achievement and improves the sustainability of a building.

These ratings broadly represent performance equivalent to:

- Outstanding: less than 1% of new non-domestic buildings in the UK (innovator)
- Excellent: Top 10% of new non-domestic buildings in the UK (best practice)
- Very Good: Top 25% of new non-domestic buildings in the UK (advanced good practice)
- Good: Top 50% of new non-domestic buildings in the UK (intermediate good practice)
- Pass: Top 75% of new non-domestic buildings in the UK (standard good practice)

4.3 Minimum standards

BRE has set a number of minimum standards, which are minimum performance requirements to achieve an overall rating. This must be achieved in addition to the percentage score shown in Table 1. These standards are listed below.

BREEAM issue	Pass	Good	Very Good	Excellent	Outstanding
Man 03: Responsible construction practices	None	None	None	**One credit (responsible construction management)**	Two credits (responsible construction management)
Man 04: Commissioning and handover	None	None	One credit (commissioning – test schedule and responsibilities)	**One credit (commissioning – test schedule and responsibilities)**	One credit (commissioning – test schedule and responsibilities)
Man 04: Commissioning and handover	None	None	Criterion 11 (Building User Guide)	**Criterion 11 (Building User Guide)**	Criterion 11 (Building User Guide)
Man 05: Aftercare	None	None	None	**One credit (commissioning - implementation)**	One credit (commissioning - implementation)
Ene 01: Reduction of energy use and carbon emissions	None	None	None	**Four credits (Energy performance or Prediction of operational energy consumption)**	Six credits (Energy performance) and Four credits (Prediction of operational energy consumption*)
Ene 02: Energy monitoring	None	None	One credit (First sub-metering credit)	**One credit (First sub-metering credit)**	One credit (First sub-metering credit)
Wat 01: Water consumption	None	One credit	One credit	**One credit**	Two credits
Wat 02: Water monitoring	None	Criterion 1 only	Criterion 1 only	**Criterion 1 only**	Criterion 1 only
Mat 03: Responsible sourcing of construction products	Criterion 1 only	Criterion 1 only	Criterion 1 only	**Criterion 1 only**	Criterion 1 only
Wst 01: Construction waste management	None	None	None	**None**	One credit
Wst 03: Operational waste	None	None	None	**One credit**	One credit

*For the 'Prediction of operational energy consumption', it must be demonstrated that the operational energy performance has been substantially improved.

Table 2 – BREEAM minimum standards

4.4 BREEAM timings

There are a number of BREEAM credits which require actions or reports at specific times or RIBA stages. If these items are missed credits cannot be awarded. BBL were brought on board at RIBA stage 2, and will work with the team to ensure where possible these deadlines have been met.
Some of these time dependent credits are detailed in Table 3.

Issue	Section	Stage
MAN 01 - Project brief and design	Project delivery planning	Prior to completion of Concept Design
	Stakeholder consultation (interested parties)	Prior to completion of Concept Design. Prior to completion of Technical Design.
	BREEAM AP (Concept Design)	Throughout Concept Design
	BREEAM Advisory Professional (Developed Design)	Throughout Developed Design
MAN 02 Life cycle cost and service life planning	Elemental life cycle cost	Concept Design
	Component level LCC options appraisal	Technical Design
MAN 03 Responsible construction practices	BREEAM Advisory Professional (Site)	Construction, Handover and Close Out
	Responsible construction management	Construction
MAN 04 Commissioning and handover	Commissioning - design and preparation	Design stage
	Testing and inspecting building fabric	Post-construction
	Handover	Prior to handover.
HEA 02 Indoor air quality	Prerequisite - Indoor air quality (IAQ) plan	Early stage of the design process
	Post-construction indoor air quality	Post-construction
HEA 05 Acoustic Performance	Acoustic Performance	Concept Design - acoustician appointment
HEA 06 Security	Security of site and building	Prior to Concept Design
ENE 01 Reduction of energy use and carbon emissions	Prediction of operational energy consumption	Prior to completion of concept design
ENE 04 Low carbon design	Passive design	During Concept Design
	Free cooling	During Concept Design
	Low and zero carbon technologies	By the end of Concept Design
ENE 05 Energy efficient cold storage	Refrigeration energy consumption	Concept Design - strategy for design and installation
ENE 07 Energy efficient laboratory system	Design Specification	Concept Design - client engagement
TRA 01 Transport assessment and travel plan	Transport assessment and travel plan	No later than Concept Design
TRA02 Sustainable transport measures	Transport options implementation	Preparation and Brief - Option 6 only
MAT 01 Environmental impacts from construction products - Building life cycle assessment (LCA)	Superstructure	During Concept Design and Technical Design
	Substructure and hard landscaping options appraisal during Concept Design	During Concept Design
MAT02 Environmental impacts from construction products - Environmental Product Declarations (EPD)	Specification of products with a recognised environmental product declaration (EPD)	Construction
MAT 03 Responsible sourcing of construction products	Enabling sustainable procurement	Before Concept Design
MAT 06 Material efficiency	Material efficiency	All stages
WST 01 Construction waste management	Pre-demolition audit	Concept Design

WST 05 Adaptation to climate change	Resilience of structure, fabric, building services and renewable installation	Before or during Concept Design and update during Technical Design
WST 06 Design for disassembly and adaptability	Design for disassembly and functional adaptability - recommendations	By the end of Concept Design
	Design for disassembly and functional adaptability - implementation	During Technical Design
LE 02 Ecological risks and opportunities	Survey and evaluation	Early enough to influence site preparation works, layout and strategic planning decisions
	Determining ecological outcomes	Early enough to influence key planning decisions
LE 03 Managing impacts on ecology	Planning and measures on-site	Early enough to influence concept design, design brief and site preparation planning

Table 3 – Time dependent BREEAM credits

5 BREEAM Score Summary

The credit strategy shows that a score of 75.37% is currently considered achievable for the development as shown in Table 4 and Figure 1. This is above the 70% required for BREEAM Excellent and allows a small buffer. The strategy and exact score may vary when formally assessed.

Section	No. credits available	Indicative no. credits targeted	Section Weighting	Indicative Section Score
Management	21	17	11.00%	8.90%
Health & Wellbeing	17	9	14.00%	7.41%
Energy	21	15	16.00%	11.43%
Transport	12	6	10.00%	5.00%
Water	8	6	7.00%	5.25%
Materials	14	10	15.00%	10.71%
Waste	10	5	6.00%	3.00%
Land Use & Ecology	13	12	13.00%	12.00%
Pollution	12	10	8.00%	6.67%
Innovation	10	5	10.00%	5.00%
Indicative Total Score	**138**	**95**		**75.37%**
			Indicative BREEAM Rating:	**Excellent**
			Minimum Standards Level Targeted:	**Excellent**

Table 4 – BREEAM Score Summary

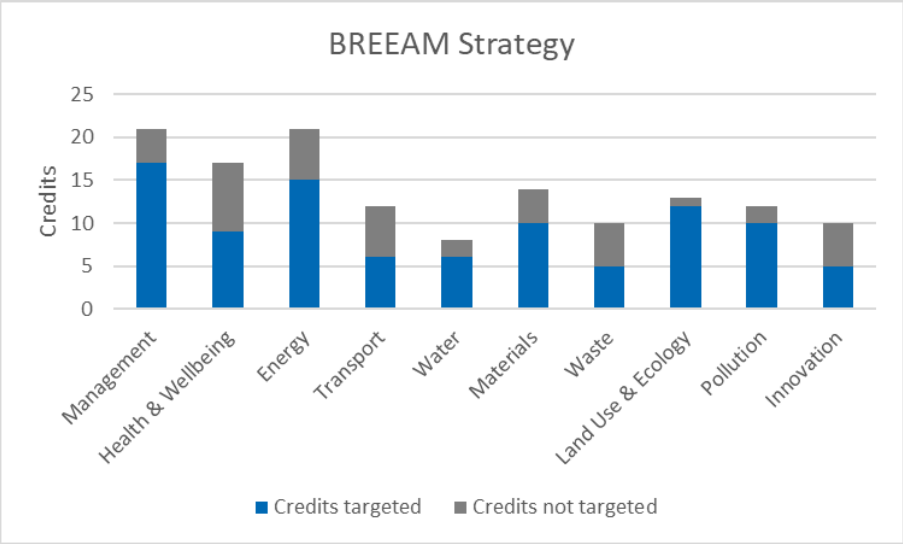


Figure 1 – BREEAM Score Summary

It is best practice to allow a buffer of credits of approximately 10% to ensure a desired target can be achieved, a small buffer has been allowed for in the strategy.

5.1 Minimum standards

The proposed strategy will ensure high standards of sustainability, with the development achieving all BREEAM Outstanding minimum standards, except for ENE01 and WST01. This exceeds the minimum standards for BREEAM Excellent. Minimum standards that will be met are shown in blue in the table below.

BREEAM issue	Pass	Good	Very Good	Excellent	Outstanding
Man 03: Responsible construction practices	None	None	None	One credit (responsible construction management)	**Two credits (responsible construction management)**
Man 04: Commissioning and handover	None	None	One credit (commissioning – test schedule and responsibilities)	One credit (commissioning – test schedule and responsibilities)	**One credit (commissioning – test schedule and responsibilities)**
Man 04: Commissioning and handover	None	None	Criterion 11 (Building User Guide)	Criterion 11 (Building User Guide)	**Criterion 11 (Building User Guide)**
Man 05: Aftercare	None	None	None	One credit (commissioning - implementation)	**One credit (commissioning - implementation)**
Ene 01: Reduction of energy use and carbon emissions	None	None	None	**Four credits (Energy performance or Prediction of operational energy consumption)**	Six credits (Energy performance) and Four credits (Prediction of operational energy consumption*)
Ene 02: Energy monitoring	None	None	One credit (First sub-metering credit)	One credit (First sub-metering credit)	**One credit (First sub-metering credit)**
Wat 01: Water consumption	None	One credit	One credit	One credit	**Two credits**
Wat 02: Water monitoring	None	Criterion 1 only	Criterion 1 only	Criterion 1 only	**Criterion 1 only**
Mat 03: Responsible sourcing of construction products	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	**Criterion 1 only**
Wst 01: Construction waste management	None	None	None	**None**	**One credit**
Wst 03: Operational waste	None	None	None	One credit	**One credit**

Table 5 – Targeted BREEAM minimum standards

6 Credit strategy

The proposed credit strategy is shown below. In addition to the credits required to achieve the 75% shown above this also highlights some additional credits which could be targeted if replacement credits were required.

	Issue	Criteria	Available credits	Targeted credits	Potential credits
Management	MAN 01 - Project brief and design	Project delivery planning	1	1	
		Stakeholder consultation	1	1	
		BREEAM Advisory Professional (AP)	2	2	
	MAN 02 - Life cycle cost and services life planning	Elemental life cycle cost (LCC)	2	2	
		Component level LCC option appraisal	1	1	
		Capital cost reporting	1	1	
	MAN 03 - Responsible construction practices	Pre-requisite - Timber			
		Environmental management	1	0	
		BREEAM Advisory Professional (AP) (site)	1	0	1
		Responsible construction management	2	2	
		Monitoring of construction site impacts	2	2	
	MAN 04 - Commissioning and handover	Commissioning - testing schedule and responsibilities	1	1	
		Commissioning - design and preparation	1	1	
		Testing and inspecting building fabric	1	0	
		Handover	1	1	
	MAN 05 - Aftercare	Aftercare support	1	1	
		Commissioning - implementation	1	1	
		Post-occupancy evaluation	1	0	1
	Management total:	Credits	21	17	19
		Weighting		11.00%	11.00%
		Section Score		0.09	0.10

	Issue	Criteria	Available credits	Targeted credits	Potential credits
Health and Wellbeing	HEA 01 - Visual comfort	Glare control	1	1	
		Daylighting	1	0	1
		View out	1	0	1
		Internal and external lighting	1	1	
	HEA 02 - Indoor air quality	Prerequisite - Indoor air quality (IAQ) plan			
		Ventilation	1	0	
		Emissions from construction products	2	0	
		Post-construction indoor air quality measurement	1	0	
	HEA 04 - Thermal comfort	Thermal modelling	1	1	
		Designing for future thermal comfort	1	0	1
		Thermal zoning and controls	1	1	
	HEA 05 - Acoustic performance	Sound insulation	1	1	
		Indoor ambient noise levels	1	1	
		Room acoustics	1	1	
	HEA 06 - Security	Security of site and building	1	1	
	HEA 07 - Safe and healthy surroundings	Safe access	1	0	
		Outside space	1	1	
	Health and Wellbeing total:	Credits	17	9	12
		Weighting		14.00%	14.00%
		Section Score		0.07	0.10

	Issue	Criteria	Available credits	Targeted credits	Potential credits
Energy	ENE 01 - Reduction of energy use and carbon emissions	Energy performance	9	5	
		Prediction of operational energy consumption	4	4	
	ENE 02 - Energy monitoring	Sub-metering of end-use categories	1	1	
		Sub-metering of high energy load and tenancy areas	1	1	
	ENE 03 - External lighting	External lighting	1	1	
	ENE 04 - Low carbon design	Passive design analysis	1	0	
		Free cooling	1	0	
		Low and zero carbon feasibility study	1	1	
	ENE 05 - Energy efficient cold storage	Refrigeration energy consumption	N/A	N/A	
		Greenhouse gas emissions from energy use	N/A	N/A	
	ENE 06 - Energy efficient transportation systems	Energy consumption	1	1	
		Energy efficient features	1	1	
	ENE 07 - Energy efficient laboratory systems	Pre-requisite	N/A	N/A	
		Design specification	N/A	N/A	
		Best practice energy efficient measures	N/A	N/A	
	ENE 08 - Energy efficient equipment	Energy efficient equipment	N/A	N/A	
	ENE 09 - Drying space	Drying space	N/A	N/A	
		Credits	21	15	15
		Weighting		16.00%	16.00%
	Energy total:	Section Score		0.11	0.11

	Issue	Criteria	Available credits	Targeted credits	Potential credits
Transport	TRA 01 - Transport assessment and travel plan	Transport assessment and travel plan	2	2	
	TRA 02 - Sustainable transport measures	Sustainable transport measures	10	4	
		Credits	12	6	6
		Weighting		10.00%	10.00%
	Travel total:	Section Score		0.05	0.05
Water	WAT 01 - Water consumption	Water consumption	5	3	
	WAT 02 - Water monitoring	Water monitoring	1	1	
	WAT 03 - Water leak detection	Leak detection system	1	1	
		Flow control devices	1	1	
	WAT 04 - Water efficient equipment	Water efficient equipment	N/A	N/A	
		Credits	8	6	6
		Weighting		7.00%	7.00%
	Water total:	Section Score		0.05	0.05
Materials	MAT 01 - Environmental impacts from construction products - Building life cycle assessment (LCA)	Superstructure	6	5	
		Substructure and hard landscaping options appraisal during Concept Design	1	1	
	MAT 02 - Environmental impacts from construction products - Environmental Product Declarations (EPD)	Specification of products with a recognised environmental product declaration	1	0	1
	MAT 03 - Responsible sourcing of construction products	Pre-requisite - Timber			
		Enabling sustainable procurement	1	1	
		Measuring responsible sourcing	3	2	
	MAT 05 - Designing for durability and resilience	Designing for durability and resilience	1	1	
	MAT 06 Material efficiency	Material efficiency	1	0	1
		Credits	14	10	12
		Weighting		15.00%	15.00%
	Materials total:	Section Score		0.11	0.13

	Issue	Criteria	Available credits	Targeted credits	Potential credits
Waste	WST 01 - Project waste management	Pre-demolition audit	1	1	
		Construction resource efficiency	3	0	2
		Diversion of resources from landfill	1	0	1
	WST 02 - Recycled aggregates	Use of recycled and sustainably sourced aggregates	1	0	
	WST 03 - Operational waste	Operational waste	1	1	
	WST 04 - Speculative finishes	Speculative finishes	N/A	N/A	
	WST 05 - Adaptation to climate change	Resilience of structure, fabric, building services and renewables installation	1	1	
	WST 06 - Design for disassembly and adaptability	Design for disassembly and functional adaptability - recommendations	1	1	
		Disassembly and functional adaptability – implementation	1	1	
	Waste total:	Credits	10	5	8
		Weighting		6.00%	6.00%
		Section Score		0.03	0.05
Land Use and Ecology	LE 01 - Site selection	Previously occupied land	1	1	
		Contaminated land	1	0	
	LE 02 - Ecological risks and opportunities	Prerequisite - Statutory obligations			
		Survey and evaluation	1	1	
		Determining the ecological outcomes for the site	1	1	
	LE 03 - Managing impacts on ecology	Planning and measures on-site	1	1	
		Managing negative impacts	2	2	
	LE 04 - Ecological change and enhancement	Ecological enhancement	1	1	
		Change and enhancement of ecology	3	3	
	LE 05 - Long term impact on biodiversity	Management and maintenance throughout the project– Foundation and Comprehensive routes	1	1	
		Landscape and ecology management plan	1	1	
	Land Use and Ecology total:	Credits	13	12	12
		Weighting		13.00%	13.00%
		Section Score		0.12	0.12

	Issue	Criteria	Available credits	Targeted credits	Potential credits
Pollution	POL 01 - Impact of refrigerants	Pre-requisite			
		Impact of refrigerant	2	1	
		Leak detection	1	0	
	POL 02 - Local air quality	Local air quality	2	2	
	POL 03 - Flood risk management and reducing surface water run-off	Flood resilience	2	2	
		Surface water run-off	2	2	
		Minimising water course pollution	1	1	
	POL 04 - Reduction of night time light pollution	Reduction of night time light pollution	1	1	
	POL 05 - Reduction of noise pollution	Reduction of noise pollution	1	1	
	Pollution total:	Credits	12	10	10
		Weighting		8.00%	8.00%
		Section Score		0.07	0.07
Innovation	MAN 03 Responsible construction practices	Responsible construction management	1	0	1
	HEA 06 - Security	Security of site and building	1	1	
	MAT 01 - Environmental impacts from construction products - Building life cycle assessment (LCA)	Life cycle impacts	3	3	
	LE 04 - Ecological change and enhancement	Change and enhancement of ecology	1	1	
	Innovation total:	Credits	10	5	6
		Weighting		10.00%	10.00%
		Section Score		0.05	0.06
TOTAL		Indicative total credits	138	95	106
		Indicative total score		**75.37%**	**83.84%**
		Indicative Rating		**Excellent**	**Excellent**

7 BREEAM Pre-assessment

The BREEAM pre-assessment, created in BRE's online software is shown on the following pages.

BREEAM® UK

www.breeam.com

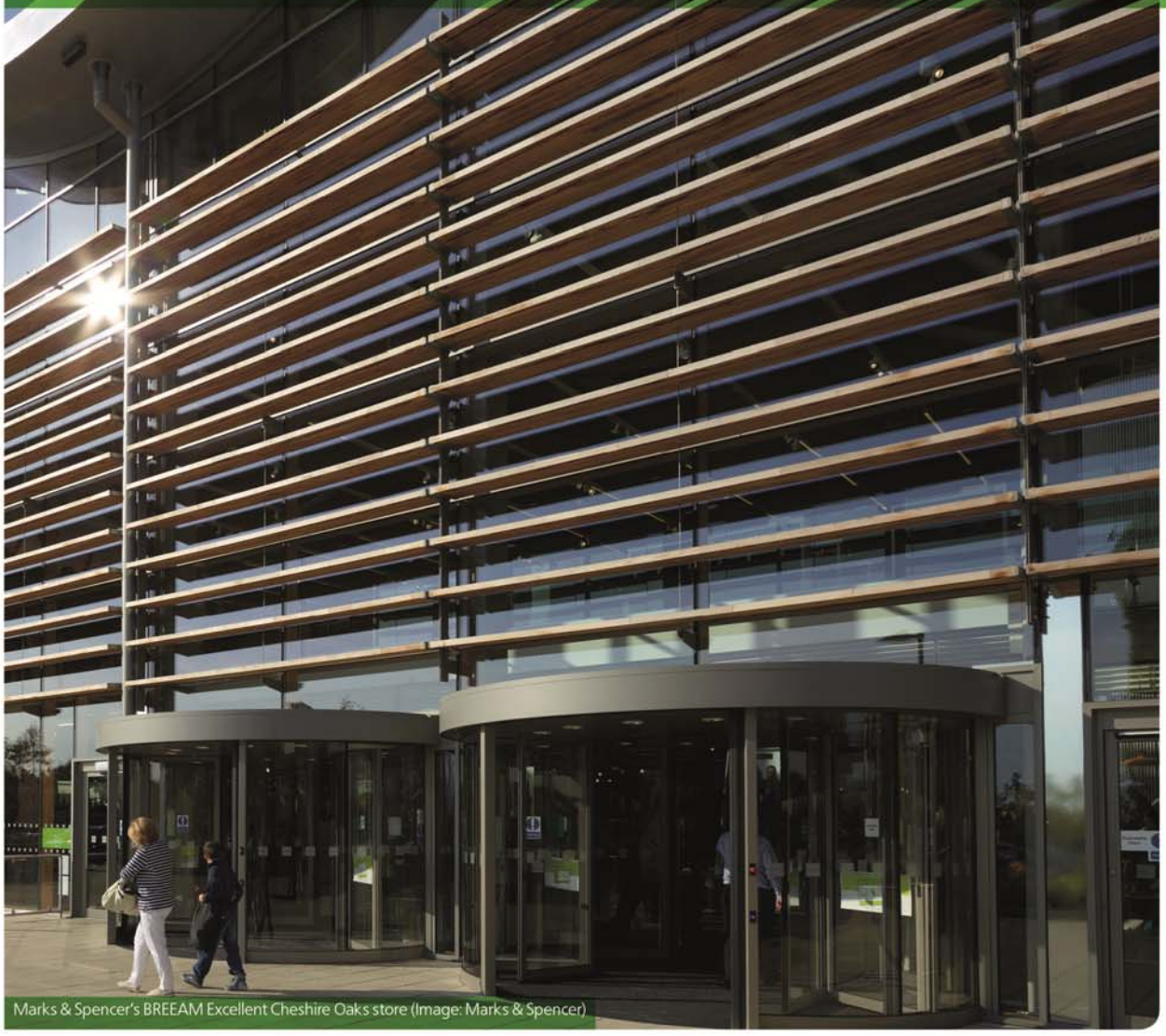
BREEAM New Construction 2018

Big Yellow Self Storage Kentish Town

Pre-assessment

BYSS Kentish Town

14 June 2022 Assessment Report



Marks & Spencer's BREEAM Excellent Cheshire Oaks store (Image: Marks & Spencer)

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Assessment references

Registration number:	BBL0776	**Date created:**	25/5/2022
Created by:	Elise Kidd		

Site details

Site name:	BYSS Kentish Town
Address:	
Town:	
County:	
Post code:	
Country:	United Kingdom

Certificate details

The certificate will have the name of the architect (if entered above) and the name of the developer (from above).

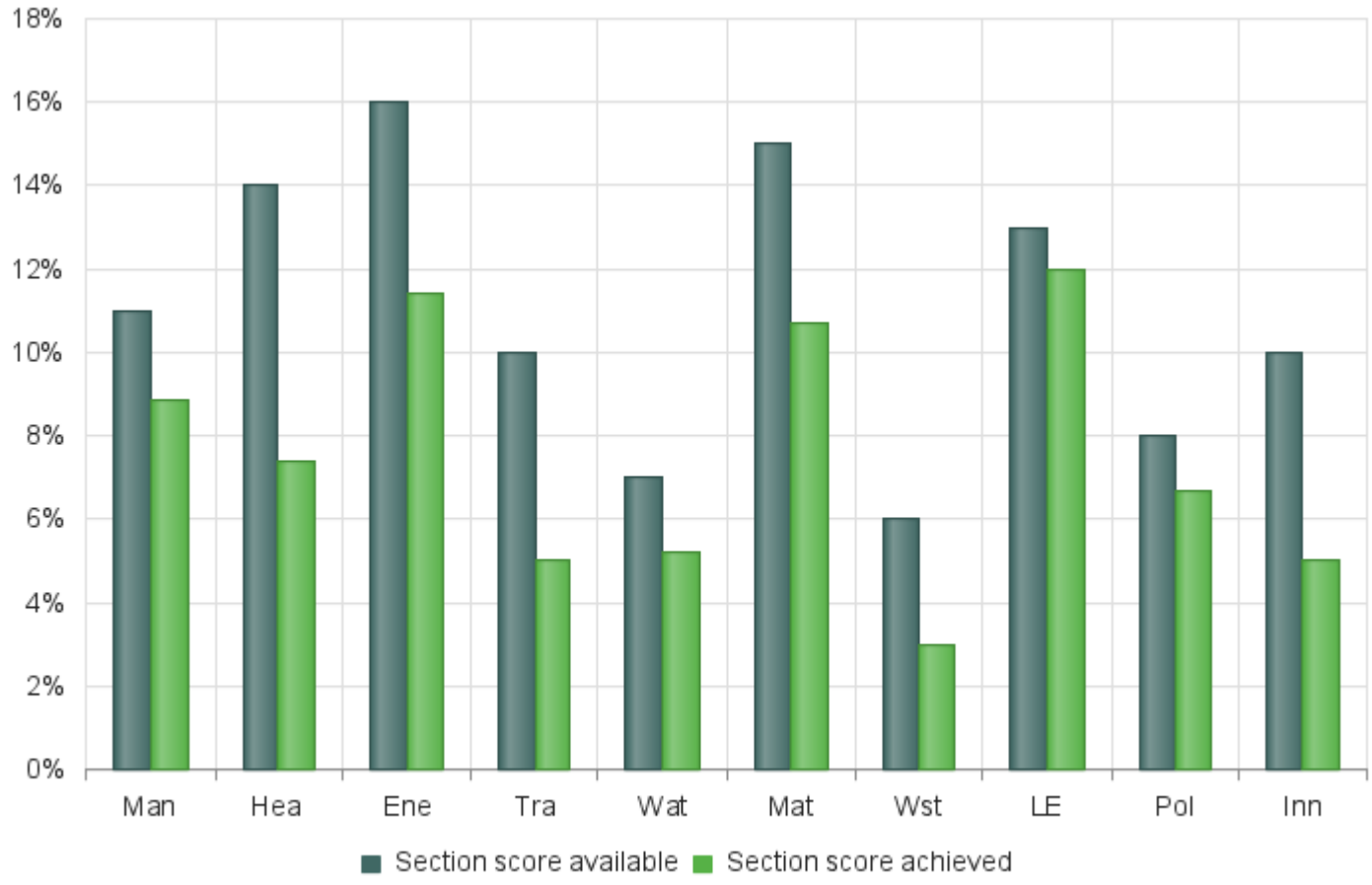
Any other names to appear on the certificate are listed below:

Name	Label

BREEAM Rating

	Credits available	Credits achieved	Credits targeted	% Credits achieved	Weighting	Category score	Target score
Man	21.0	17.0	17.0	80.95%	11.00%	8.90%	8.90%
Hea	17.0	9.0	9.0	52.94%	14.00%	7.41%	7.41%
Ene	21.0	15.0	15.0	71.43%	16.00%	11.42%	11.42%
Tra	12.0	6.0	6.0	50.00%	10.00%	5.00%	5.00%
Wat	8.0	6.0	6.0	75.00%	7.00%	5.25%	5.25%
Mat	14.0	10.0	10.0	71.43%	15.00%	10.71%	10.71%
Wst	10.0	5.0	5.0	50.00%	6.00%	3.00%	3.00%
LE	13.0	12.0	12.0	92.31%	13.00%	12.00%	12.00%
Pol	12.0	10.0	10.0	83.33%	8.00%	6.66%	6.66%
Inn	10.0	5.0	5.0	50.00%	10.00%	5.00%	5.00%
Total	138.0	95.0	95.0	68.84%	-	75.37%	75.37%
Rating	-	-	-	-	-	★★★★☆ **Excellent**	Excelle

Performance by environmental category



Indicator scores

More information (https://www.breeam.com/news/new-breeam-indicators-to-be-added-to-breeam/) about the BREEAM indicator scores

Issue scores

Please Note: X means the exemplary credit for the relevant issue

Management

Man 01 Project Brief and design
4 / 4

Man 02 Life cycle cost and service life planning
4 / 4

Man 03 Responsible construction practices
4 / 6 X: 0 / 1

Man 04 Commissioning and handover
3 / 4

Man 05 Aftercare
2 / 3

Health and Wellbeing

Hea 01 Visual comfort
2 / 4 X: 0 / 2

Hea 02 Indoor air quality
0 / 4 X: 0 / 1

Hea 04 Thermal comfort
2 / 3

Hea 05 Acoustic performance
3 / 3

Hea 06 Security
1 / 1 X: 1 / 1

Hea 07 Safe and Healthy Surroundings
1 / 2

Energy

Ene 01 Reduction of energy use and carbon emissions
9 / 13 X: 0 / 5

Ene 02 Energy monitoring
2 / 2

Ene 03 External lighting
1 / 1

Ene 04 Low carbon design
1 / 3

Ene 05 Energy efficient cold storage
N/A

Ene 06 Energy efficient transportation systems
2 / 2

Ene 07 Energy efficient laboratory systems
N/A

Ene 08 Energy efficient equipment
N/A

Transport

Tra 01 Transport assessment and travel plan
2 / 2

Tra 02 Sustainable transport measures
4 / 10

Water

Wat 01 Water consumption
3 / 5 X: 0 / 1

Wat 02 Water monitoring
1 / 1

Wat 03 Water leak detection
2 / 2

Wat 04 Water efficient equipment
N/A

Materials

Mat 01 Life cycle impacts
5 / 7 X: 3 / 3

Mat 02 Environmental impacts from construction products
0 / 1

Mat 03 Responsible sourcing
4 / 4 X: 0 / 1

Mat 05 Designing for durability and resilience
1 / 1

Mat 06 Material efficiency
0 / 1

Waste

Wst 01 Construction waste management
1 / 5 X: 0 / 1

Wst 02 Use of recycled and sustainably sourced aggregates
0 / 1 X: 0 / 1

Wst 03 Operational waste
1 / 1

Wst 04 Speculative finishes (Offices only)
N/A

Wst 05 Adaptation to climate change
1 / 1 X: 0 / 1

Wst 06 Design for disassembly and adaptability
2 / 2

Land use and ecology

LE 01 Site selection
1 / 2

LE 02 Ecological risks and opportunities
2 / 2 X: 0 / 1

LE 03 Managing impacts on ecology
3 / 3

LE 04 Ecological change and enhancement
4 / 4 X: 1 / 1

LE 05 Long term ecology management and maintenance

2 / 2

Pollution

Pol 01 Impact of refrigerants

1 / 3

Pol 02 Local air quality

2 / 2

Pol 03 Flood risk management and reducing surface water run-off

5 / 5

Pol 04 Reduction of Night Time Light Pollution

1 / 1

Pol 05 Noise attenuation

1 / 1

Innovation

Inn 01 Innovation

0 / 0 X: 0 / 10

Initial details

Technical manual issue number : Issue 3.0

Project scope : Fully fitted

Building type (main description) : Industrial

Sub-group : Warehouse, storage or distribution

Does this industrial building have an office area, or other occupied spaces? : Yes

Assessment stage : Post Construction Assessment

Building floor area (GIA) : 9505 m^2

Building floor area (NIFA) : 9000 m^2

Is the building designed to be untreated? : No

Building services - heating system type : Air system

Building services - cooling system type : Comfort cooling

Does the building have external areas within the boundary of the assessed development? : Yes

Are commercial or industrial-sized refrigeration and storage systems specified? : No

Are building user lifts present? : Yes

Are building user escalators or moving walks present? : No

Are there any water demands present other than those assessed in Wat 01? : No

Are there statutory requirements, or other issues outside of the control of the project, that impact the ability to provide outdoor space : No

Are there any systems specified that contribute to the unregulated energy load? : No

Are the Post-occupancy stage credits targeted in Ene 01 issue? : No

Are laboratories present? : No

Are there fume cupboard(s) and/or other containment devices present? : No

Category assessment
Management (Man)

Man 01 Project Brief and design

To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.

Assessment criteria

Stakeholder consultation (interested parties) :	Yes
Project delivery planning :	Yes
Prerequisite: Have the client and the contractor formally agreed performance targets? :	Yes
BREEAM Advisory Professional (Concept Design) :	Yes
BREEAM Advisory Professional (Developed Design) :	Yes

Credits awarded : 4

Comments :
Prior to completion of the Concept Design, the project delivery stakeholders meet to identify and define for each key phase of project delivery: a. Roles b. Responsibilities c. Contributions. The project team demonstrates how this has influenced the design. - 1 credit
Prior to completion of the Concept Design, the design team consult with all interested parties, and demonstrates how this influences design. Prior to completion of the detailed design consultation feedback is given. - 1 credit
Involvement of a BREEAM AP at concept design (it has been assumed that Lou Perrin has acted in this role until the end of May 2022, and this will be taken over by Ian Bacon. - 1 credit
Involvement of a BREEAM AP at developed design (it has been assumed that Lou Perrin has acted in this role until the end of May 2022, and this will be taken over by Ian Bacon. - 1 credit

Man 02 Life cycle cost and service life planning

To promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through-life maintenance and operation.

Assessment criteria

Elemental LCC :	Yes
Component level LCC options appraisal :	Yes
Capital cost reporting :	Yes

Capital cost of the project :	100 Â£k/m^2

Credits awarded : 4

Comments :
Based on other projects it has been assumed that BY will appoint a consultant to undertake the life cycle cost and service planning. The default design life of 60 years will be used. - 2 credits
Based on other projects it has been assumed that BY will appoint a consultant to undertake a Component level LCC Options Appraisal. - 1 credit
Estimated figures used at DS will be finalised at the end of construction by the Shell & Core Contractors cost consultant and BY. - 1 credit

Man 03 Responsible construction practices

To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.

Assessment criteria

Prerequisite: Are all timber and timber-based products used during the construction process of the project 'legally harvested and traded timber'? :	Yes
Environmental management :	No
Prerequisite: Have the client and the contractor formally agreed performance targets? :	Yes
BREEAM Advisory Professional (site) :	No
Responsible construction management :	2
Monitoring of construction site impacts :	Yes
Utility consumption :	Yes
Transport of construction materials and waste :	Yes
Exemplary level criteria - Responsible construction management :	No

Key Performance Indicators: Construction site energy use

Energy consumption (total) - site processes :	1 kWh
Energy consumption (intensity) - site processes :	1 kWh/project value
Distance (total) - materials transport to site :	1 km

Distance (total) - waste transport from site :	1 km

Key Performance Indicators: Construction site greenhouse gas emissions

Process greenhouse gas emissions (total) - site processes :	1 $KgCO_2eq$
Carbon dioxide emissions (intensity) - site processes :	1 $KgCO_2$ eq/project value
Carbon dioxide emissions (total) - materials transport to site :	1 $KgCO_2eq$
Carbon dioxide emissions (total) - waste transport from site :	1 $KgCO_2eq$
Carbon dioxide emissions (intensity) - materials transport to site :	1 $KgCO_2$ eq/project value
Carbon dioxide emissions (intensity) - waste transport from site :	1 $KgCO_2$ eq/project value

Key Performance Indicators: Construction site use of potable water resources:

Use of potable water resource (total) - site processes :	1 m^3
Use of potable water resource (intensity) - site processes :	1 m^3/Â£100k

Credits awarded : 4

Comments :
Based on other projects it has been assumed that BY ERâs and Sustainable Procurement Plan will document the use of sustainable timber products. - Pre requisite.
BY do not operate an EMS therefore this credit cannot be awarded. - 1 credit not assumed.
Appointment of a site AP hasn't been assumed at this stage. - 1 credit not assumed.
Based on other projects it has been assumed that the project will be signed up to the Considerate Contractors Scheme (CCS). Compliance is expected - this will require documentation of some additional measures not covered by CCS - 2 credits (1 exemplary level credit not assumed)
BY and the Shell & Core contractor will be required to set targets for and monitor site energy and water use and transport to and from site. - 2 credits

Man 04 Commissioning and handover

To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.

Assessment criteria

Commissioning testing schedule and responsibilities :	Yes

Commissioning - design and preparation :	Yes
Testing and inspecting building fabric :	No
Handover - have a technical and a non-technical building user guide been developed prior to handover? :	Yes
Handover - have a technical and a non-technical training schedule been prepared around handover? :	Yes

Credits awarded : 3

Comments :
Based on other projects a schedule of commissioning and testing will be prepared. - 1 credit.
Based on other projects an appropriate project team member will be appointed during design stage to review and give advice on commissioning. - 1 credit.
Based on other projects testing and inspection of building fabric is not targeted. - 1 credit not assumed.
Based on other projects a technical and non-technical building user guide and training schedule will be developed. - 1 credit.

Man 05 Aftercare

To ensure the building operates in accordance with the design intent and operational demands, through providing aftercare to the building owner and occupants during the first year of occupation.

Assessment criteria

Is this a speculative development? :	No
Aftercare support :	Yes
Commissioning - implementation :	Yes
Post occupancy evaluation :	No
The client or building occupier commits funds to pay for the POE in advance. :	No

Credits awarded : 2

Comments :
Based on other projects aftercare support will be provided. - 1 credit.
Based on other projects compliant commissioning will be carried out. - 1 credit.
Based on other post occupancy evaluation is not targeted. This could be a back up credit. - 1 credit not assumed.

Health and Wellbeing (Hea)

Hea 01 Visual comfort

To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.

Assessment criteria

Control of glare from sunlight :	Yes
Daylighting (building type dependent) :	0
View Out :	No
Internal and external lighting levels, zoning and controls :	Yes
Exemplary level criteria- Internal and external lighting levels, zoning and control :	No

Credits awarded : 2

Comments :
Based on other projects a glare control strategy has been assumed. - 1 credit.
The daylighting credits have not been assumed at this stage, calculations would be required to confirm this. 80% of spaces are required to comply. - 1 credit and 1 exemplary level credit not assumed.
The view out credit has not been assumed at this stage, calculations would be required to confirm this. 95% of spaces are required to comply. - 1 credit not assumed.
Based on other project compliant internal and external lighting levels, zones and controls have been assumed. - 1 credit.
Exemplary level internal lighting zones have not been targeted. - 1 exemplary level credit not assumed.

Hea 02 Indoor air quality

To encourage and support healthy internal environments with good indoor air quality.

Assessment criteria

Pre requisite: Indoor air quality (IAQ) plan :	No
Ventilation :	No
Emissions from building products :	0
Post-construction indoor air quality measurement :	No

Exemplary level criteria- Emissions from building products :	No

Key Performance Indicators

Formaldehyde concentration :

Total volatile organic compound (TVOC) concentration :

Credits awarded : 0

Comments :
Based on previous projects an indoor air quality plan will not be produced. - pre requisite not assumed.
Based on previous projects it has been assumed that the ventilation strategy will not be compliant. - 1 credit not assumed.
Based on other projects product VOC levels will not be targeted. - 1 credit and 1 exemplary level credit not assumed.
Based on other projects post construction air quality testing will not be carried out. - 1 credit not assumed.

Hea 04 Thermal comfort

To ensure the building is capable of providing an appropriate level of thermal comfort.

Assessment criteria

Thermal modelling :	Yes
Design for future thermal comfort :	No
Thermal zoning and controls :	Yes

Key Performance Indicators

PMV and PPD Indices :

Credits awarded : 2

Comments :
It has been assumed that thermal modelling will be carried out by Silcock Dawson. - 1 credit.
At this stage it has been assumed that the thermal model will not include a projected climate change scenario. - 1 credit not assumed.
The temperature control strategy will be informed by the thermal modelling. - 1 credit.

Hea 05 Acoustic performance

To ensure the building is capable of providing an appropriate acoustic environment to provide comfort for building users.

Assessment criteria

Criteria performance requirements or SQA bespoke requirements? :	Criteria performance requirements
Sound insulation :	1
Indoor ambient noise level :	Yes
Room acoustics :	Yes

Credits awarded : 3

Comments :
BY have a track record of continually meeting the requirements to achieve the 3 credits available in this issue, an acoustician will be required to confirm this. - 3 credits.

Hea 06 Security

To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site.

Assessment criteria

Security of site and building :	Yes
Exemplary level criteria :	Yes

Credits awarded : 1
Exemplary credits awarded : 1

Comments :
based on other project it has been assumed that a security consultant will provide a SABRE report and certificate. - 1 credit and 1 exemplary level credit

Hea 07 Safe and Healthy Surroundings

To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users. .

Assessment criteria

Safe Access :	No
Outside Space :	Yes

Credits awarded : 1

Comments :
Based on the site plan delivery areas are accessed through parking areas and cross the pedestrian footpaths. - 1 credit not assumed.
It has been assumed compliant outside space will be provided. - 1 credit.

Energy (Ene)

Ene 01 Reduction of energy use and carbon emissions

To minimise operational energy demand, primary energy consumption and CO2 emissions.

Energy performance

Country :	England
Can a .inp file be uploaded? :	No
Without the .inp file being uploaded only the standard methodology can be used. This may impact the number of credits that can be awarded. :	
Energy Production by Technology :	
Energy & CO_2 Emissions Summary :	
Actual building energy demand :	2.06 MJ/m^2 yr
Notional building energy demand :	1.71 MJ/m^2 yr
Actual building primary energy consumption :	57.62 kWh/m^2 yr
Notional building primary energy consumption :	96.69 kWh/m^2 yr
Actual building CO_2-eq emissions (BER) :	7.4 KgCO_2-eq/m^2 yr
Notional building CO_2-eq emissions (TER) :	16.8 KgCO_2-eq/m^2 yr

Towards carbon negative (exemplary credits)

Zero net CO_2-eq emissions :	No

Energy performance - Building score

Heating and cooling demand energy performance ratio (EPRdem) :	0.0
Primary consumption energy performance ratio (EPRpc) :	0.231
Total BREEAM credits achieved :	5.0
CO_2-eq energy performance ratio (EPRco2-eq) :	0.29
Overall building energy performance ratio (EPRnc) :	0.521
% improvement BER/TER :	56.0 %

Prediction of operational energy consumption

Has a design workshop focusing on operational energy performance been carried out? :	Yes
Additional energy modelling to generate predicted operational energy consumption figures carried out? :	Yes
Predicted energy consumption targets by end use, design assumptions and input data reported? :	Yes
Risk assessment to highlight any significant design, technical, and process risks? :	Yes

Post-occupancy stage (exemplary credits)

Maximum credits achieved in Ene 02 Energy monitoring? :	Yes
The client or building occupier commits funds to pay for the post-occupancy stage? :	No
The energy model is submitted to BRE and retained by the building owner? :	No

Credits awarded : 9

Comments :
Based on other developments it has been assumed that 5 credits can be awarded for reduction of energy use and carbon emissions. BRUKL output documents will be required to confirm this. - 5 credits.
Based on other developments it has been assumed that prediction of operational energy consumption will be carried out by Silcock Dawson. - 4 credits.

Ene 02 Energy monitoring

To encourage the installation of energy sub-metering that facilitates the monitoring of operational energy consumption. To enable managers and consultants post-handover to compare actual performance with targets in order to inform ongoing management and help in reducing the performance gap.

Assessment criteria

Sub-metering of end use categories :	Yes
Sub-metering of high energy load and tenancy areas :	Yes

Credits awarded : 2

Comments :
It has bene assumed that energy sub-meters will be installed based on end use and this will cover at least 90% of energy consumption. - 1 credit.

For single occupancy buildings, metering must be dived per floor and per functional areas. For industrial buildings, sub metering is required for office areas, operational areas and ancillary areas. - 1 credit.

Ene 03 External lighting

To reduce energy consumption through the specification of energy efficient light fittings for external areas of the development.

Assessment criteria

External lighting has been designed out? :	No
Is external lighting specified in accordance with the relevant criteria? :	Yes

Credits awarded : 1

Comments :
It has been assumed that external lighting will be compliant. - 1 credit.

Ene 04 Low carbon design

To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.

Assessment criteria

Has the first credit within Hea 04 been achieved? :	Yes
Passive design analysis :	No
Free cooling :	No
Low and zero carbon technologies :	Yes

KPI

Total on-site and/or near-site LZC energy generation :

Expected energy consumption and CO_2-eq emissions reduction resulting from passive design measures :
Expected energy consumption and CO_2-eq emissions reduction resulting from passive design measures as a percentage :
Expected reduction in CO_2-eq emissions resulting from the LZC technologies :
Expected reduction in CO_2-eq emissions resulting from the LZC

technologies as a percentage :
: 1

Credits awarded

Comments :
Based on past assessments, a passive design analysis will not be carried out. - 2 credits not assumed.
It has been assumed that a LZC report will be carried out by Silcock Dawson and solar PV panels will be installed. - 1 credit.

Ene 05 Energy efficient cold storage

To encourage the installation of energy efficient refrigeration systems, in order to reduce operational greenhouse gas emissions resulting from the system's energy use.

Assessment criteria - N/A

Ene 06 Energy efficient transportation systems

To encourage the specification of energy efficient transport systems within buildings.

Assessment criteria

Energy consumption :	Yes
Energy efficient features - Lifts :	Yes

Credits awarded : 2

Comments :
Based on other assessments the lifts will be BREEAM compliant. - 2 credits.

Ene 07 Energy efficient laboratory systems

To encourage laboratory areas that are designed to minimise their operational energy consumptionand associated CO2 emission

Assessment criteria - N/A

Ene 08 Energy efficient equipment

To encourage installation of energy efficient equipment to ensure optimum performance and

energy savings in operation

Assessment criteria - N/A

Transport (Tra)

Tra 01 Transport assessment and travel plan

To reward awareness of existing local transport and identify improvements to make it more sustainable.

Assessment criteria

Travel plan :	Yes

Credits awarded : 2

Comments :
A transport assessment and travel plan have been provided by Rappor Consultants Ltd. - 2 credits.

Tra 02 Sustainable transport measures

To maximise the potential for local public, private and active transport through provision of sustainable transport measures appropriate to the site.

Assessment criteria

Prerequisite :	Yes
Location type (based on existing AI) :	AI <25
Number of points achieved overall :	4

Credits awarded : 4

Comments :
It has been assumed the TRA01 travel plan will be produced. - pre requisite.
Based on the transport assessment the accessibility index is 20.03. Based on the transport assessment electric vehicle charging points will be provided for over 10% of the total parking capacity (minimum of 3kW). Based on the transport assessment cycle storage will be provided (1 space per 10 staff). Based on the transport assessment appropriate amenities (food, cash point and pharmacy) are within 500m of the site. - 4 credits.

Water (Wat)

Wat 01 Water consumption

To reduce the consumption of potable water for sanitary use in new buildings through the use of water efficient components and water recycling systems.

Assessment criteria

Please select the calculation procedure used :	Standard approach
Credits awarded :	3
Exemplary performance :	No

Key Performance Indicators

Standard approach data: :

Water Consumption from building micro-components :

Water demand met via greywater/rainwater sources :

Total net water consumption :

Improvement on baseline performance :

Key Performance Indicator - use of freshwater resource: :

Total net Water Consumption :

Default building occupancy :

Credits awarded : 3

Comments :
Components to be included as a minimum:
â¢ WCs â 3.75l effective flush volume
â¢ Taps (wash hand basins) 5l/min
â¢ Kitchenette Tap â 6l/min - (where provided)
â¢ Showers - 6l/min
â¢ Domestic sized dishwasher - 12l/cycle (where provided)
Other BYSS units assessed by SDP have achieved 24.17l/p/d / 6.2m3/yr - 3 credits.

Wat 02 Water monitoring

To reduce the consumption of potable water in new buildings through the effective management and monitoring of water consumption.

Assessment criteria

Water meter on the mains water supply to each building :	Yes
Sub-metering/monitoring equipment on supply to plant/building areas :	Yes
Pulsed output or other open protocol communication output and BMS connection :	Yes
The water monitoring strategy used enables the identification of all water consumption for sanitary uses as assessed under Wat 01 (L/person/day) :	Yes

Credits awarded : 1

Comments :
A water meter on the mains water supply has been assumed. - pre requisite.
Sub-meters to water-consuming plant or building areas consuming 10% or more of the total water demand have been assumed. - 1 credit.

Wat 03 Water leak detection

To reduce the consumption of potable water in new buildings through minimising wastage due to water leaks.

Assessment criteria

Leak detection system :	Yes
Flow control devices :	Yes

Credits awarded : 2

Comments :
Compliant water leak detection has been assumed. - 1 credit.
Compliant flow control devices to WC areas have been assumed. - 1 credit.

Wat 04 Water efficient equipment

To reduce water consumption for uses not assessed under Wat 01 by encouraging specification of water efficient equipment.

Assessment criteria - N/A

Materials (Mat)

Mat 01 Life cycle impacts

To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.

Assessment criteria

Total Mat 01 credits achieved - taken from the Mat 01/02 Results Submission Tool :	5
Total Exemplary credits achieved - taken from the Mat 01/02 Results Submission Tool :	3

Credits awarded : 5
Exemplary credits awarded : 3

Comments :
Based on other BY projects it has been assumed that an appropriate consultant will be appointed to undertake the LCA assessment. Work is required during concept design and the Mat 01/02 Results Submission Tool must be submitted to BRE at the end of Concept Design. - 5 credits.
Based on other BY projects it has been assumed that the LCA options appraisal includes core building services. - 1 exemplary level credit.
Based on other BY projects LCA & LCC alignment has been assumed. - 1 exemplary level credit.
Based on other BY projects third party verification has been assumed. - 1 exemplary level credit.

Mat 02 Environmental impacts from construction products

To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.

Assessment criteria

Mat 02 credit achieved - Taken from the Mat 01/02 Results Submission Tool. :	0

Credits awarded : 0

Comments :
It has been assumed that it will not be possible to specify products with required EPD's. One material details are known this can be reviewed. - 1 credit not assumed.

Mat 03 Responsible sourcing

To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.

Assessment criteria

Prerequisite: All timber and timber based products are 'Legally harvested and traded timber' :	Yes
Has the enabling sustainable procurement credit been achieved? :	Yes
Mat 03 minimum scope level :	plus Core building services
Percentage of available for percentage of RSM points achieved :	30 %

Credits awarded : 4

Comments :
Based on other projects it has been assumed that BY ERâs and Sustainable Procurement Plan will document the use of sustainable timber products. - Pre requisite.
The shell and core contractor and BY are required to have sustainable procurement plans. - 1 credit.
It has been assumed that materials will be responsibly sourced. - 3 credits.

Mat 05 Designing for durability and resilience

To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape.

Assessment criteria

Protecting vulnerable parts of the building from damage and exposed parts of the building from material degradation :	Yes

Credits awarded : 1

Comments :
Based on previous project it has been assumed that the architect will incorporate protection measures into the design. - 1 credit.

Mat 06 Material efficiency

To avoid unnecessary materials use arising from over specification without compromising structural stability, durability or the service life of the building.

Assessment criteria	
Material optimisation measures investigated and implemented at all relevant stages :	No

Credits awarded : 0

Comments :
As BY will not have a SWMP for the fit out work this credit has not been assumed. - 1 credit.

Waste (Wst)

Wst 01 Construction waste management

To reduce construction waste by encouraging reuse, recovery and best practice waste management practicesto minimise waste going to landfill.

Assessment criteria

Is demolition occurring under the developer's ownership for the purpose of enabling the assessed development? :	Yes
Pre-demolition audit :	Yes
Compliant Resource Management Plan :	No
Have waste materials been sorted into separate key waste groups? :	No
Exemplary level criteria :	No

KPI

Measure/units for the data being reported :	tonnes
Non-hazardous construction waste (excluding demolition/excavation) - fill in to award 'Construction resource efficiency' credits :	6.5 tonnes/100m2
Total non-hazardous construction waste generated :	
Non-hazardous non-demolition construction waste diverted from landfill - fill in to award diversion from landfill credit :	80 %
Total non-hazardous non-demolition construction waste diverted from landfill :	
Non-hazardous demolition waste diverted from landfill - fill in to award diversion from landfill credit :	90 %
Total non-hazardous demolition waste generated :	
Total non-hazardous demolition waste to disposal :	
Non-hazardous excavation waste diverted from landfill - fill in to award credit :	
Material for reuse :	
Material for recycling :	
Material for energy recovery :	
Hazardous waste to disposal :	

Credits awarded : 1

Comments :

It has been assumed that BY will undertake a Pre-demolition audit of the existing site. - 1 credit
BY will not have a site waste management plan covering the fit out work. - 3 credits not assumed.
As there will not be a site waste management plan for the fit out work diversion of resources from landfill has not been assumed. - 1 credit not assumed.

Wst 02 Use of recycled and sustainably sourced aggregates

To encourage the use of more sustainably sourced aggregates, encourage reuse where appropriate and avoid waste and pollution arising from disposal of demolition and other forms of waste.

Assessment criteria

Is demolition occurring under the developer's ownership for the purpose of enabling the assessed development? :	Yes
Pre-requisite: pre-demolition audit :	Yes

Projects Sustainable Aggregate points :

KPI

Total quantity of aggregate :

% of high - grade aggregate that is recycled/ secondary aggregate by application :

Credits awarded : 0

Comments :
Based on previous projects use of recycled and sustainably sourced aggregates has not been targeted. - 2 credits not assumed.

Wst 03 Operational waste

To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.

Assessment criteria

Compliant recycling and non-recyclable waste storage allocated :	Yes
Static waste compactor(s) or baler(s) :	N/A
Vessel(s) for composting suitable organic waste and water outlet :	N/A

Credits awarded : 1

Comments :
Dedicated space for the segregation and storage of operational recyclable waste has been assumed. - 1 credit.

Wst 04 Speculative finishes (Offices only)

To minimise the wastage associated with the installation of floor and ceiling finishes in lettable areas in speculative buildings where tenants have not been involved in their selection.

Assessment criteria - N/A

Wst 05 Adaptation to climate change

To minimise the future need of carrying out works to adapt the building to take account of more extreme weather changes resulting from climate change and changing weather patterns.

Assessment criteria

Resilience of structure, fabric, building services and renewables installation :	Yes
Exemplary level - responding to climate change :	No

Credits awarded : 1

Comments :
It has been assumed based on previous projects that the architect will conduct a climate change adaptation strategy appraisal and develop recommendations. - 1 credit.

Wst 06 Design for disassembly and adaptability

To avoid unnecessary materials use, cost and disruption arising from the need for future adaptation works as a result of changing functional demands and to maximise the ability to reclaim and reuse materials at final demolition in line with the principles of a circular economy.

Assessment criteria

Design for disassembly and functional adaptability - recommendations :	Yes
Disassembly and functional adaptability - implementation :	Yes

Credits awarded : 2

Comments :
It has been assumed based on previous projects that Design for disassembly and functional adaptability recommendations will be made and implemented. - 2 credits.

Land use and ecology (LE)

LE 01 Site selection

To encourage the use of previously occupied or contaminated land and avoid land which has not been previously disturbed.

Assessment criteria

Percentage of proposed development's footprint on previously occupied land: :	75 %
Contaminated land :	No

Credits awarded : 1

Comments :
It has been assumed that at least 75% of the footprint is on previously occupied land. - 1 credit.
The land quality statement from Campbell Reith Hill LLP shows that the site is not contaminated and therefore the contaminated land credit cannot be targeted. - 1 credit not assumed.

LE 02 Ecological risks and opportunities

To determine the existing ecological value associated with the site and surrounding areas, and the risks and opportunities for ecological protection and enhancement.

Assessment criteria

Assessment route selection :	Comprehensive
Prerequisite - Statutory obligations :	Yes
Survey and Evaluation :	Yes
Determining ecological outcomes :	Yes
Exemplary level - Wider site sustainability :	No

Credits awarded : 2

Comments :
It has been assumed that compliance will be monitored against all relevant UK and EU or international legislation relating to the ecology of the site. - pre requisite.
RPS have carried out a preliminary ecological appraisal. It has been assumed a Suitably Qualified Ecologist will carryout a survey and evaluation early enough to influence site preparation works, layout and, where necessary, strategic planning decisions. - 1 credit.

The project team are expected to liaise with representative stakeholders to identify optimal ecological outcomes and appraise and select measures. - 1 credit.

LE 03 Managing impacts on ecology

To avoid, or limit as far as possible, negative ecological impacts associated with the site and surrounding areas resulting from the project.

Assessment criteria

Assessment route :	Comprehensive
Prerequisite - Ecological risks and opportunities :	Yes
Planning and measures on-site :	Yes
Managing negative impacts :	2

Credits awarded : 3

Comments :
The LE02 credits will be achieved - pre requisite.
It has been assumed that further planning to avoid and manage negative ecological impacts will be carried out and onsite measures will be implemented. - 1 credit.
Negative impacts from site preparation and construction works will be managed according to the mitigation hierarchy, in line with the SQE's recommendations to ensure no overall loss of ecological value. - 2 credits.

LE 04 Ecological change and enhancement

To enhance ecological value of the area associated with the site in support of local, regional and national priorities.

Assessment criteria

Assessment route :	Comprehensive
Prerequisite - Managing negative impacts on ecology :	Yes
Ecological enhancement (Comprehensive route only) :	Yes
Change and enhancement of ecology (Comprehensive route only) :	3

Credits awarded : 4
Exemplary credits awarded : 1

Comments :
It has been assumed that compliance will be monitored against all relevant UK and EU or international legislation relating to the ecology of the site. - pre requisite.
It has been assumed that maximum credits can be awarded. The ecologist will be required to confirm this. - 4 credits and 1 exemplary level credit.

LE 05 Long term ecology management and maintenance

To secure ongoing monitoring, management and maintenance of the site and its habitats and ecological features, to ensure intended outcomes are realised for the long term.

Assessment criteria

Assessment route :	Comprehensive
At least one credit achieved under LE 04 for 'Change and Enhancement of Ecologyâ :	Yes
Prerequisite - Statutory obligations, planning and site implementation :	Yes
Management and maintenance throughout the project :	Yes
Landscape and ecology management plan :	Yes

Credits awarded : 2

Comments :
It has been assumed that compliance will be monitored against all relevant UK and EU or international legislation relating to the ecology of the site. - pre requisite.
It has been assumed measures will be implemented to manage and maintain ecology throughout the project. A section on Ecology and Biodiversity will be included in the tenant or building owner information supplied. - 1 credit.
It has been assumed a Landscape and Ecology Management Plan will be developed and implemented. - 1 credit.

Pollution (Pol)

Pol 01 Impact of refrigerants

To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.

Assessment criteria

Refrigerant containing systems installed in the assessed building? :	Yes
Prequisite: All systems (with electric compressors) comply with BSÂ EN 378:2016 (parts 2 and 3) and (where applicable) Institute of Refrigeration Ammonia Refrigeration Systems code of practice? :	Yes
Total Direct Effect Life Cycle CO2eq (DELC). Emissions from the system :	999 kgCO2eq/kW
Global Warming Potential (GWP) of the specified refrigerant(s) 10 or less? :	No

Leak detection

Are all the systems hermetically sealed? :	No
BREEAM compliant automatic refrigerant leak detection system installed and able to manage the remaining refrigerant charge :	No

Credits awarded : 1

Comments :
Based on previous BY projects where an air source heat pump is specified, Daikin and Mitsubishi have developed a system that can achieve one credit, manufacturerâs literature will be required and Pol 01 calculations need to be completed by the manufacturer for this credit to be awarded. - 1 credit
Refrigeration leak detection will not be possible. - 1 credit not assumed.

Pol 02 Local air quality

To contribute to a reduction in local air pollution through the use of low emission combustion appliances in the building.

Assessment criteria

Is the project required to connect to a District Heating system, and it supplies all heating and hot water demands to the building? :	No
How many credits have been achieved? :	2

Credits awarded : 2

Comments :
The use of ASHP will secure 2 credits. - 2 credits

Pol 03 Flood risk management and reducing surface water run-off

To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on and off-site, watercourse pollution and other environmental damage.

Assessment criteria

Prerequisite: Has an appropriate consultant demonstrated and confirmed the development's compliance with all sought credits? :	Yes
Has a site-specific flood risk assessment been conducted? :	Yes
Annual probability of flooding :	Low
Has the pre-requisite for the Surface Water Run-Off credits been achieved? :	Yes
Has the Surface Water Run-Off - Rate credit been achieved? :	Yes
Has the Surface Water Run-Off - Volume credit been achieved? :	Yes
Minimising watercourse pollution :	Yes

Credits awarded : 5

Comments :
A flood risk assessment will be carried out by Campbell Reith. This shows the site has a low flood risk. - 2 credits.
Based on the SUDs report it appears that the rate of surface water will be compliant. - 1 credit.
Based on the SUDs report it appears that volume of surface water will increase post development, and this is not avoidable. Therefore post-development peak rate of run-off will be reduced to 2l/s. - 1 credit.
Based on the SUDs report watercourse pollution will be minimised. - 1 credit.

Pol 04 Reduction of Night Time Light Pollution

To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.

Assessment criteria

External lighting has been designed out? :	Yes

Credits awarded : 1

Comments :
Based on past projects external lighting will reduce night time light pollution. - 1 credit.

Pol 05 Noise attenuation

To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise-sensitive buildings.

Assessment criteria

Noise-sensitive areas/buildings within 800m radius of the development :	Yes
Is the site compliant with all relevant criteria? :	Yes

Credits awarded : 1

Comments :
Site plans suggest there are noise sensitive areas within 800m. A noise impact assessment has therefore been assumed. - 1 credit.

Innovation (Inn)

Inn 01 Innovation

To support innovation within the construction industry through the recognition of sustainability related benefits which are not rewarded by standard BREEAM issues.

Assessment criteria

Number of 'approved' innovation credits achieved? :	0

Credits awarded : 0