PROJECT REF	**BS 1369**
DATE	**May 2020**
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ABBEY ROAD – PHASE 2

SUSTAINABILITY STATEMENT




PREPARED FOR:

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PROJECT REVISION SHEET

Revision No.	Date	Details	Changes	Author	Approved
0	*28/05/2020*	*For Comments*	*N/A*	*MR*	*MR*

Contents

1.0 SUSTAINABILITY STATEMENT

1.1. Introduction

Norman Bromley Partnership were commissioned by Wates Construction London residential to provide a Sustainability Statement to support the planning application for the proposed Abbey Road Phase 2, London NW6 4DW

The scheme comprises of a 2 storey building with a community centre to the ground floor and a health centre to the first floor.

The proposal also includes the landscaping of the site and provision of play area.

Figure 1 – Abbey Centre View

In order to satisfy the requirements of the GLA London Plan, Intend to Publish London Plan (ITP, 2019) and the Camden Local Plan the Abbey Phase 2 scheme has been designed and engineered with a particular focus on sustainability. The design approach aimed to firstly minimize energy consumption by means of passive techniques before providing energy efficient systems.

The proposal for the new community centre and health centre will address sustainability through the inclusion of design requirements that comprehensively tackle impacts associated with building developments. The following areas are covered by the statement :-

- Passive and Active Design
- Energy
- Ecology and landscape
- Construction and Demolition
- Water
- Pollution
- BREEAM

1.2. Passive and Active Design

A passive design approach to the development of the proposed building is crucial to the success of reducing its carbon footprint. Our strategy incorporates a fine balance between natural daylight, natural ventilation and use of thermal mass, avoiding both discomfort glare and excessive solar gain during the summer months.

The building footprint has been kept as compact as possible to reduce its impact on the site and retain as many trees and as much open space as possible.

Daylighting
We believe that natural daylight is not just a key element to achieve energy savings, but it is a crucial element to deliver quality and comfort in public building environments. The glazing provided to the building also ensures good views of the surrounding park from the main public areas.

Cooling and Overheating
The proposed development utilises a number of design measures based on the London Plan Cooling Hierarchy to reduce the demand for cooling and prevent the risk of overheating.

An overheating analysis of the building has been carried out and demonstrates the effectiveness of the measures listed below, in ensuring the community centre and health centre achieves the thermal comfort levels as dictated by CIBSE TM52.

1 – Minimise internal heat generation through energy efficient design – The use of high efficiency insulation in excess of the levels required by the building regulations shall limit heat losses from heating distribution within the building. The heat distribution pipe lengths have been kept to a minimum.

2 – Reducing the amount of heat entering the building in the summer – The south facing glazing provided to the waiting areas to maximise views of the park have been provided with external solar shading. Additional external solar shading

is also provided to the windows on the west elevation. Internal blinds shall also be provided to consulting rooms and offices.

3 – Use of thermal mass and high ceilings to manage heat within the building – The community centre is being provided with high ceilings to assist with the management of heat in the building.

4 - Mechanical ventilation – The health centre is being provided with mechanical ventilation and partial cooling for clinical reasons. Heat recovery is being provided and the system can be used for free cooling in the summer. The community centre foyer, resource room and hall are also being provided with heat recovery mechanical ventilation due to the restricted use of opening windows for acoustic reasons.

5 - Passive ventilation – The rooms to the community centre shall generally be ventilated via opening windows and doors with the exception of the hall, foyer and resource room which require mechanical ventilation as window opening are restricted due to noise. The health centre is provided with opening windows although mechanical ventilation is required to clinical rooms.

The proposed ventilation strategy satisfies that CO_2 and overheating requirements of the CIBSE TM52.

A dynamic thermal simulation has been carried out for the naturally ventilated rooms to predict internal temperatures using IES thermal modelling software. The building will be compliant with the CIBSE TM52 overheating criteria.

Systems and Controls
Lighting to the offices, consulting rooms, function rooms etc., will be on movement sensors and will include daylight dimming.

The lighting to corridors, WC's and stores shall be controlled by movement sensors.

The new community centre and health centre shall be provided with a Building Management system to reduce and monitor energy usage.

Separate thermostat control shall be provided to control the heating in each room of the community centre and health centre which will be provided with underfloor heating.

Site Ecology and Biodiversity
Our design aims to enhance the ecology and biodiversity of the site. Refer to the Design and Access Statement for details.

1.3. Energy

Norman Bromley Partnership were commissioned by Wates Construction London Residentia to provide an Energy Assessment to support the planning application for the proposed Abbey Road Phase 2, London NW6 4DW – Refer to Norman Bromley Partnership's Energy Report included with the planning documents.

The aim of the energy report is to support a full planning application for the phase 2 development and addresses the key requirements of local, regional and national policy.

The assessment concludes that the proposed Abbey Road Phase 2 development, based upon the proposed building geometry and incorporating the following measures will achieve compliance with the Building Regulation, the London Plan and the Camden Local Plan.

Energy Demand Reduction

1. Improved building fabric over Part L 2013
2. Low Energy Lighting with automated controls
3. High Efficiency Pumps
4. Intelligent Building Controls

Low Carbon Energy Supply

1. Heating and hot water supplied by air source heat pumps with a heating efficiency of 350% and a hot water efficiency of 250%.

Renewable Energy

1. Photovoltaic Cells providing an output of 15.5 kWp

It is predicted that the Abbey Road Phase 2 development shall achieve a 37.26% improvement over Part L2A 2013 in compliance with the London Plan.

The 37.26 % improvement over Part L2A 2013 shall wholly be satisfied by onsite measures.

It is also predicted that the PV array will reduce the buildings energy usage by 20%.

1.4. Water

The scheme will adopt low-flow water consuming appliances and fittings throughout with at least 25% improvement against BREEAM's notional baseline performance.

These include :-

- Low Flush WC's
- Flow Restricting Taps

Meters are effective in encouraging people to reduce their water consumption and raises overall awareness. Separate water meters will be fitted to the mains water supply of the community centre and health centre.

The incoming water services shall be provided with leak detection.

Another proposed measure is to install flow control devices to WC areas to ensure water is not wasted.

1.5. **Pollution**

In addition to the reduced CO2 emissions achieved by the proposed development and set out in the energy section above, the use of air source heat pumps will result in zero NOx emissions.

The external lighting has been designed to avoid night-time light pollution and shall be compliant with the requirements of the ILP Guidance notes for the reduction of obtrusive light, 2011.

The external lighting shall also be provided with time switch control so that all external luminaires (except for safety and security lighting) can be switched off between 23:00 and 07:00.

1.6. **BREEAM**

The process of assessment uses the BREEAM for New Construction 2018 criteria issued by the BRE (Building Research Establishment). Santec are appointed as BREEAM facilitator for the project and have prepared a report, the main points of which are summarised below:-

- BREEAM establishes a set of categories under which specific credit requirements are grouped: Management, Health and Wellbeing, Energy, Transport, Water, Materials, Waste, Land Use, Ecology, Pollution.

- Camden Council requires a BREEAM rating of 'Excellent' to be demonstrated as the possible outcome of the project,

- A pre-assessment meeting was attended by the client, architect, project manager and environmental services engineer.

- It was identified that an ‘Excellent’ rating could be achieved on the project.
- In order to ensure that the ‘Excellent’ rating is achieved in the completed project, the design team members need to ensure that the credit criteria are incorporated in the developing design and that suitable evidence can be provided to validate achievement.

The BREEAM Pre-Assessment is included in Section 2.0 of this submission.

2.0 BREEAM PRE-ASSESSMENT

Abbey Road Phase 2

BREEAM New Construction 2018 Pre-Assessment

On behalf of **Wates**

Project Ref: 46830 | Rev: 1.0 | Date: May 2020

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Document Control Sheet

Project Name: **Abbey Road Phase 2**

Project Ref: **46830**

Report Title: **BREEAM New Construction 2018 Pre-Assessment**

Date: **May 2020**

	Name	Position	Signature	Date
Prepared by:	Richard Knight	BREEAM Assessor	RK	May 2020
Reviewed by:	Michael Dray	Principal Sustainability Consultant	MD	May 2020
Approved by:	Stefan Boss	Director of Environmental Planning	SB	May 2020
For and on behalf of Stantec UK Limited				

Revision	Date	Description	Prepared	Reviewed	Approved
0	November 2019	Draft for comment	RK	MD	JR
1	May 2020	Final	RK	MD	SB

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Tables

1 Introduction

1.1.1 Stantec UK Limited (Stantec) has been appointed by appointed by Wates Construction London Residential (Wates) to prepare a BREEAM Pre-assessment in support of the detailed (full) planning application for the Proposed Development at Abbey Road, Phase 2 (hereafter referred to as 'the Site').

1.1.2 Wates will be submitting a detailed planning application for the project which comprises a health centre and community centre that will be incorporated into a two-storey building. The community centre will have a GIA of 796.7 sqm at the ground floor. The health centre will be located on the first floor and will have a GIA of 988.5 sqm. Access to the health centre will be from the ground floor (separate access from the community centre). There are also shared facilities at ground level including plant and refuse spaces. The total building area is 1,858.7 sqm.

1.1.3 The site is in the London Borough of Camden (LBC). Policy CC2 Adapting to climate change of the Camden Local Plan 2017 expects non-domestic developments of 500 sqm of floorspace or above to achieve 'Excellent' in BREEAM assessments.

1.1.4 Furthermore, the Draft London Plan 2019 Policy SI5 Water infrastructure requires developments to achieve at least BREEAM Excellent standards, which equates to a 12.5% improvement over the BREEAM baseline, in the Wat 1 category.

1.1.5 In accordance with above policy, this document demonstrates how BREEAM Excellent could be achieved for the abovementioned units, and outlines what commitments are required in order to target this level.

1.1.6 This pre-assessment represents the Healthcare Unit and the Community Centre within the Abbey Road Phase 2 development. It has been carried out using the BREEAM New Construction 2018 Technical Guidance.

1.1.7 A BREEAM workshop was held on 5th November 2019 regarding the above BREEAM position. The information regarding the credits that would be targeted was discussed and agreed in the workshop. A further workshop was held on 30th March 2020 at which the BREEAM position was discussed in light of new evidence.

1.1.8 The BREEAM workshop had a primary focus of addressing credits which were in the control of the design team such as the building design and building services in order to demonstrate that sustainability had been embedded within the scheme where possible.

1.1.9 **Chapter 3** of this report contains the detailed BREEAM Pre-Assessment based on information available at the time of writing, which provides a credit by credit analysis of the applicability of each credit to this scheme.

1.1.10 A BREEAM assessment does allow some scoping of credits to reflect the individuality of each project being assessed through the selection of certain parameters such as inclusion of cold storage, lifts, landscaping, etc. This scoping approach does refine credits to a certain degree. However, some of the remaining credits may still not be totally applicable to the scheme being assessed.

1.1.11 The full credit breakdown of how this has been achieved is detailed below in **Chapter 3** Pre-Assessment.

2 Overview of BREEAM

2.1 Introduction

2.1.1 BREEAM is an environmental assessment method for rating and certifying the performance of non-domestic buildings. BREEAM first came into use in 1990 and was solely for offices. Since then the scheme has been developed to encompass more building types and a wider range of environmental sustainability topics.

2.1.2 BREEAM assesses the performance of an individual non-domestic buildings against criteria grouped into the following eight categories (each category is made up of a number of subcategories):

- Management;
- Health and Wellbeing;
- Energy;
- Water;
- Materials;
- Waste;
- Land Use and Ecology; and
- Pollution.

2.1.3 The formal BREEAM assessment comprises two stages: a Design Stage assessment and a Post Construction Stage assessment. An interim certificate is issued on completion of the Design Stage assessment and the final certificate is issued on completion of the Post Construction Stage assessment.

2.2 Mandatory Elements

2.2.1 Five out of the eight categories within the BREEAM have mandatory minimum performance standards for certain subcategories. These are: Management, Energy, Water, Materials and Waste.

2.2.2 The development must meet all of the mandatory elements relevant to the BREEAM level targeted otherwise no rating will be achieved.

2.3 Tradable Credits

2.3.1 Credits are awarded to individual subcategories within each of the eight categories listed in paragraph 2.1.2. Credits in each category are given a different weighting which is applied to convert the credits into percentage points.

2.3.2 These weightings depend on the building which is being assessed e.g. fully fitted out, simple building, Shell & Core or Shell Only. In this instance, both units are being assessed as fully fitted out units.

2.3.3 The weightings of each category are shown in Table 2.1.

Table 2.1: Weighting factors of credits

Category	Fully Fitted Out	Simple Building	Shell & Core	Shell Only
Management	11	7.5	11	12
Health and Wellbeing	14	16.5	8	7
Energy	16	11.5	14	9.5
Transport	10	11.5	11.5	14.5
Water	7	7.5	7	2
Materials	15	17.5	17.5	22
Waste	6	7	7	8
Land Use and Ecology	13	15	15	19
Pollution	8	6	9	6

2.3.4 However, the number of credits in each category varies depending on the scope of the BREEAM assessment, therefore the percentage contribution to the overall score from each credit may not be in line with the overall weight value of the category.

2.3.5 These percentage points are then totaled to determine the BREEAM Rating (see Table 2.2).

Table 2.2: Relationship between total percentage point scores and BREEAM Level

BREEAM Rating	Minimum % Required
Outstanding	>85
Excellent	>70
Very Good	>55
Good	>45
Pass	>30
Unclassified	<30

2.4 Assessment and Certification

2.4.1 The environmental performance of a development is assessed in two parts. The first is the Design Stage assessment, which is carried out at the detailed design stage of the development which is typically after planning during the period leading up to the issue of the tender documents and initial appointments. Once this assessment is carried out an interim certificate detailing the BREEAM Rating achieved at design stage is issued. Following completion of the Design Stage assessment, a Post Construction Stage assessment is carried out to confirm the unit has been built to the specification detailed in the Design Stage assessment. Once confirmed, and variances documented, the relevant final certificate can be issued.

3 Pre-Assessment

3.1.1 The following pre-assessments have been carried out using information available at this stage of design. The pre-assessment should be reviewed as the development progresses through the detailed design and construction phases to ensure that it is still accurate.

3.1.2 The BREEAM New Construction 2018 Technical Guidance should be consulted by the appropriate design team member for each relevant category to ensure that the requirements are fulfilled.

3.1.3 The order of the pre-assessments in the following pages is as per the below:

- Healthcare Unit Credits;
- Healthcare Unit Score;
- Community Centre Credits;
- Community Centre Score.

Table 3.1: Current indicative score

Building	Score (%)	Rating
Healthcare Unit	76.61	Excellent
Community Centre	76.76	Excellent

3.1.4 As can be seen above, the healthcare unit and the Community Centre both have the ability to reach the Excellent threshold.

3.1.5 As explained in the section 2.3, a BREEAM assessment is based on the number of credits achieved within each category which in turn is subject to the level of information or evidence which can be provided. As previously stated this pre-assessment is based upon information that is present at the time of the planning application and is therefore subject to change as the development progresses and work on site begins.

3.1.6 It is therefore recommended that the rating of Excellent should be retained within any future planning conditions but that a specific score should not be targeted so as to provide the project with some flexibility in reaching the Excellent level as required by Policy CC2.

Abbey Road Phase 2 Healthcare

BREEAM Scheme: New Construction 2018
Building Name: Abbey Road Phase 2 Healthcare
Registration No.: TBC
Assessor: Stantec

Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	RIBA Stage	Notes
		Management				
Man 1	Project Brief and Design	To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.	**4**	**3**	2	Wide stakeholder engagement has been carried out, with the information recieved feeding into the design evolution. Specifics relating to the BREEAM requirements of stakeholder engagement has been sent to Wates A BREEAM Accredited Professional from Stantec has been appointed to provide advice on sustainability at the design stage.
Man 2	Lifecycle 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.	**4**	**1**	2	It was agreed by Wates that the price per square metre of floor space could be provided
Man 3	Responsible Construction Practices	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	**6**	**6**		Wates as the principal contractor, will need to ensure that these BREEAM requirements relating to construction practices are adhered to.
Man 4	Commissioning and Handover	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.	**4**	**4**	5	Wates as the principal contractor will be responsible for the commissioning of any equipment installed within the healthcare unit.
Man 5	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.	**3**	**3**		These will be requirements of Wates as the principal contractor, and as NHS will be the occupier a POE will be likely to ensure that the building is performing as required
		Health & Wellbeing				
Hea 1	Visual Comfort	To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.	**5**	**2**		Norman Bromley (M&E) confirmed that the lighting is in compliance with relevant CIBSE guidance At this stage day light modelling has not been completed and therefore this credits have not been assessed
Hea 2	Indoor air quality	To encourage and support healthy internal environments with good indoor air quality.	**4**	**4**	2	Norman Bromley (M&E) confirmed that they could provide an IAQP It was confirmed on 5.11.19 that low VOC products and the testing of such products would be included within future specifcations
Hea 4	Thermal comfort	To ensure the building is capable of providing an appropriate level of thermal comfort.	**3**	**3**		Norman Bromley (M&E) confirmed that thermal modelling was being carried out
Hea 5	Acoustic Performance	To ensure the building is capable of providing an appropriate acoustic environment to provide comfort for building users.	**3**	**3**	2	RBA Acoustics have been appointed to provide guidance on acoustics
Hea 6	Security	To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site	**1**	**1**		An Officer from the Metropolitan Police has been appointed to provide security advice, the scheme is also seeking Secured by Design accreditation
Hea 7	Safe & Healthy Surroundings	To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users	**2**	**2**		The requirements in relation to this credit were provided to AHR architects on 16/10 who will provide a technical note on this topic

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Abbey Road Phase 2 Healthcare

BREEAM Scheme: New Construction 2018
Building Name: Abbey Road Phase 2 Healthcare
Registration No.: TBC
Assessor: Stantec

Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	RIBA Stage	Notes
		Energy				
Ene 1	Reduction of CO2 Emissions	To minimise operational energy demand, primary energy consumption and CO_2 emissions..	**13**	**6**		Norman Bromley (M&E) have provided a BRUKL which shows that an EPRnc of 0.61 can be achieved
Ene 2	Energy Monitoring	To encourage the installation of energy sub-metering to facilitate 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.	**2**	**2**		Norman Bromley (M&E) have confirmed that there will be sufficient energy monitoring installed
Ene 3	External Lighting	To reduce energy consumption through the specification of energy efficient light fittings for external areas of the development.	**1**	**1**		Norman Bromley (M&E) have confirmed that the lighting will be energy efficient in line with BREEAM requirements
Ene 4	Low zero carbon technologies	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	**3**	**2**	2	Norman Bromley (M&E) confirmed that an Energy Statement was being carried out for planning purposes
Ene 6	Energy efficient transportation systems	To encourage the specification of energy efficient transportation systems within buildings.	**2**	**2**	2	There will be a requirement for the proposed lifts to be energy efficient - once the lift provider is known the BREEAM requirements can be issued across
Ene 8	Energy efficient equipment	To encourage installation of energy efficient equipment to ensure optimum performance and energy savings in operation.	**2**	**2**		The exact specification of plug in equipment is not yet known, however it was felt on 5.11.19 that the equipment installed would be more representative of office scale equipment i.e. printers, computer, phones, etc. rather than large scale specialist healthcare equipment
		Transport				
Tra 1	Public transport Accessibility	To reward awareness of existing local transport and identify improvements to make it more sustainable.	**2**	**2**	1	A Travel Plan is being produced by Stantec
Tra 2	Proximity to amenities	To maximise the potential for local public, private and active transport through provision of sustainable transport measures appropriate to the site.	**10**	**7**	1	The Accessibility Index of the site is greater than 8, but will not be improved as a result of the project. The site is well positioned with access to amenities including a post box, cash machine and food outlet, whilst outside space for recreational will be provided as part of the scheme. It was confirmed on 5.11.19 that a real-time public information system stating bus times and tube services could be provided. There are no general car parking spaces provided within the scheme.
		Water				
Wat 1	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.	**5**	**4**		The specification of lower water use fittings such as dual flush toilets and low flow taps will enable these credits to be sought.
Wat 2	Water monitoring	To reduce the consumption of potable water in new buildings through the effective management and monitoring of water consumption.	**1**	**1**		Norman Bromley (M&E) have confirmed that there will be water meters provided in line with BREEAM requirements
Wat 3	Major leak detection and prevention	To reduce the consumption of potable water in new buildings through minimising wastage due to water leaks.	**2**	**2**		Norman Bromley (M&E) have confirmed that there will be leak detection systems and solenoid valves provided in line with BREEAM requirements

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Abbey Road Phase 2 Healthcare

BREEAM Scheme: New Construction 2018
Building Name: Abbey Road Phase 2 Healthcare
Registration No.: TBC
Assessor: Stantec

Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	RIBA Stage	Notes
		Materials				
Mat 1	Environmental Impact from Construction Materials - LCA	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.	**7**	**4**	2	A Life Cycle Analysis has been undertaken by Hodkinson which demonstrates that the scheme has the ability to achieve 3 credits for choosing materials that have lower emboddied carbon whilst also meeting the necessary structural elements imposed by the schemes design requirements. Furthermore, the work has been undertaken by a third party specialist whilst enables an additional credit to be sought.
Mat 2	Environmental Impact from Construction Materials - EPD	To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.	**1**	**0**		At this stage the level of detail concerning Environmental Product Details is not known and therefore this credit will be assessed at a later stage.
Mat 3	Responsible sourcing of construction products	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.	**4**	**3**	1	It will be a requirement of Wates as the principal contractor to source materials from suppliers who have third party environmental certification
Mat 5	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.	**1**	**1**		The requirements in relation to this credit were provided to AHR architects on 16/10 which will provide a technical note on this information
Mat 6	Material Efficiency	To avoid unnecessary materials use arising from over specification without compromising structural stability, durability or the service life of the building.	**1**	**1**	1	The requirements in relation to this credit were provided to AHR architects on 16/10 which will provide a technical note on this information
		Waste				
Wst 1	Construction Site Waste Management	To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.	**4**	**4**	2	It will be a requirement of Wates as the Principal Contractor to operate a SWMP which has high targets for diversion from landfill and low targets for waste generation. There is no demolition associated with this development.
Wst 2	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.	**1**	**0**		There are no sources of aggregates which will be generated on site
Wst 3	Operational Waste	To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.	**1**	**1**		There will be a designated waste storage area which is be sized sufficiently and appropriately labelled
Wst 5	Adaption 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.	**1**	**1**	2	The requirements in relation to this credit were provided to AHR architects on 16/10 which will provide a technical note on this information
Wst 6	Designing 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.	**2**	**2**	2	The requirements in relation to this credit were provided to AHR architects on 16/10 which will provide a technical note on this information

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Abbey Road Phase 2 Healthcare

BREEAM Scheme: New Construction 2018
Building Name: Abbey Road Phase 2 Healthcare
Registration No.: TBC
Assessor: Stantec

Stantec

Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	RIBA Stage	Notes
Land Use & Ecology						
LE1	Site selection	To encourage the use of previously occupied or contaminated land and avoid land which has not been previously disturbed.	**2**	**0**		The site was no previsouly contaminated and does not contain significant amounts of hard standing
LE2	Identifying and understanding the risks and opportunities for the site	To determine the ecological baseline and zone of influence of the site and identify risks and opportunities for achieving optimum outcomes.	**2**	**2**		The BREEAM Ecology proforma completed by Stantec based on the work undertaken by DF Clarke demonstrates that 2 credits can be achieved
LE3	Managing negative impacts	To avoid, or limit as far as possible, negative impacts on the ecology of the site and its zone of influence arising as a result of the project.	**3**	**3**		The BREEAM Ecology proforma completed by Stantec based on the work undertaken by DF Clarke demonstrates that 3 credits can be achieved for managing negative impacts
LE4	Enhancement of ecological value	To enhance the ecological value of the site and areas within its zone of influence in support of local, regional and national priorities.	**4**	**4**		The BREEAM Ecology proforma completed by Stantec based on the work undertaken by DF Clarke demonstrates that 4 credits can be achieved for enhancing site ecology
LE5	Long term impact on biodiversity	To secure ongoing monitoring, management and maintenance of the site and, its habitats ecological features to ensure intended outcomes are realised for the long term.	**2**	**2**		The recommendations from the Ecologist will be followed, with the site workforce sufficiently trained. A landscape management plan will be produced in relation to the soft landscaping which is being introduced.
Pollution						
Pol 1	Impact of refrigerants	To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.	**3**	**1**		Norman Bromley (M&E) have confirmed that there will be leak detection system in line with BREEAM requirements
Pol 2	Local Air Quality	To contribute to a reduction in local air pollution through the use of low emission combustion appliances in the building.	**2**	**2**		Norman Bromley (M&E) have confirmed that the heating and hot water systems will be powered by electricity rather than gas.
Pol 3	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-site and off-site, watercourse pollution and other environmental damage.	**5**	**4**		The requirements in relation to FRA and drainage have been provided to Stantec Civils, how have confirmed that the development is within Flood Zone 1 and therefore has a low probability of flooding and that the run-off rate and volume will meet BREEAM requirements. This information can be found within the FRA and Drainage Strategy that accompanies the planning application.
Pol 4	Reduction of Night Time Light Pollution	To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, thereby reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.	**1**	**1**		Norman Bromley (M&E) have confirmed that the lighting will not lead to an increase in night time light pollution in line with BREEAM requirements
Pol 5	Reduction of Noise Pollution	To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noisesensitive buildings.	**1**	**1**		RBA Acoustics have been appointed to provide guidance on acoustics
Innovation - Exemplary Level Criteria						
Innovation/Exemplar			**10**			

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Abbey Road Phase 2 Healthcare

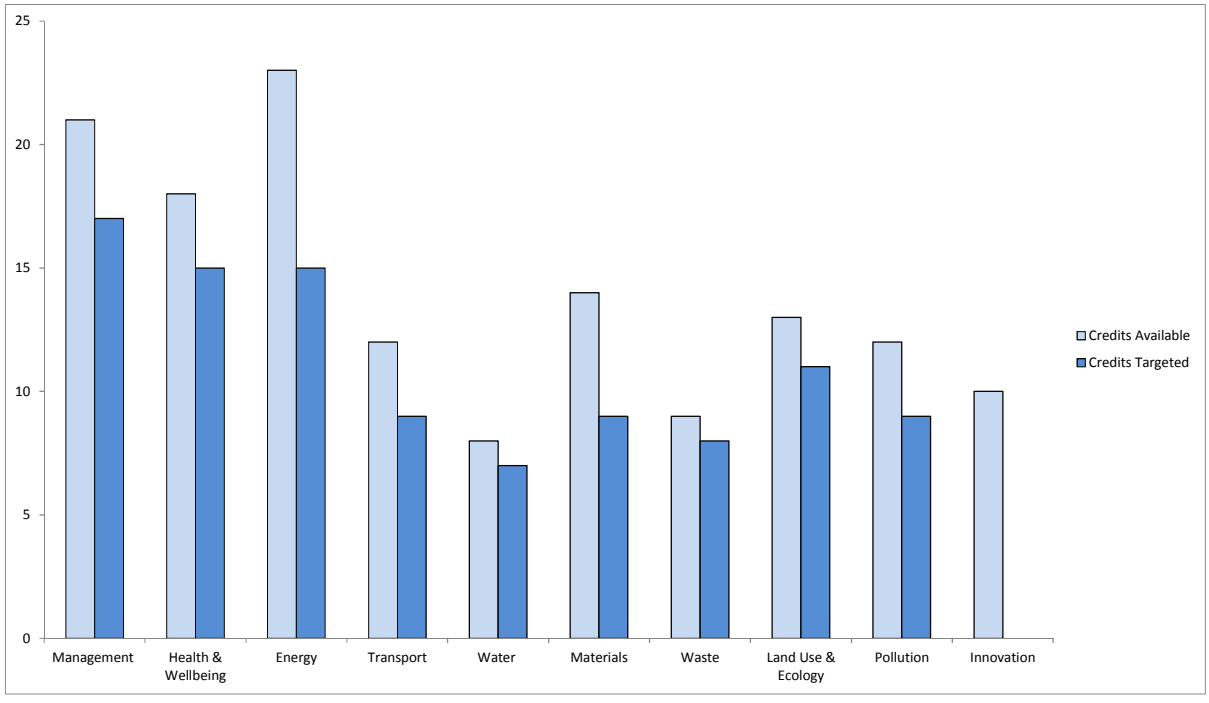
BREEAM Scheme:	New Construction 2018
Building Name:	Abbey Road Phase 2 Healthcare
BREEAM Registration No.:	TBC
BREEAM Assessor:	Stantec

Pass	30%
Good	45%
Very Good	55%
Excellent	70%
Outstanding	85%

Stage of Assessment	BREEAM Score	BREEAM Rating
Pre-assessment	76.61%	Excellent

Building Performance by Section

	Environmental weighting	Credits Available	Credits Targeted	% Targeted	Weighted Score
Management	11.00%	21	17	80.95%	8.90%
Health & Wellbeing	14.00%	18	15	83.33%	11.67%
Energy	16.00%	23	15	65.22%	10.43%
Transport	10.00%	12	9	75.00%	7.50%
Water	7.00%	8	7	87.50%	6.13%
Materials	15.00%	14	9	64.29%	9.64%
Waste	6.00%	9	8	88.89%	5.33%
Land Use & Ecology	13.00%	13	11	84.62%	11.00%
Pollution	8.00%	12	9	75.00%	6.00%
Innovation	10.00%	10	0	0.00%	0.00%
Total BREEAM Score					**76.61%**



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Abbey Road Phase 2 Community Centre

BREEAM Scheme: New Construction 2018
Building Name: Abbey Road Phase 2 Community Centre
Registration No.: TBC
Assessor: Richard Knight

Stantec

Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	RIBA Stage	Notes
		Management				
Man 1	Project Brief and Design	To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.	**4**	**3**	2	Wide stakeholder engagement has been carried out, with the information recieved feeding into the design evolution. Specifics relating to the BREEAM requirements of stakeholder engagement has been sent to Wates A BREEAM Accredited Professional from Stantec has been appointed to provide advice on sustainability at the design stage.
Man 2	Lifecycle 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.	**4**	**1**	2	It was agreed by Wates that the price per square metre of floor space could be provided
Man 3	Responsible Construction Practices	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	**6**	**6**		Wates as the principal contractor, will need to ensure that these BREEAM requirements relating to construction practices are adhered to.
Man 4	Commissioning and Handover	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.	**4**	**4**	5	Wates as the principal contractor will be responsible for the commissioning of any equipment installed within the community centre
Man 5	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.	**3**	**3**		Wates as the principal contractor, will be responsible for providing aftercare support to the occupier
		Health & Wellbeing				
Hea 1	Visual Comfort	To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.	**4**	**2**		Norman Bromley (M&E) confirmed that the lighting is in compliance with relevant CIBSE guidance At this stage day light modelling has not been completed and therefore this credits have not been assessed
Hea 2	Indoor air quality	To encourage and support healthy internal environments with good indoor air quality.	**4**	**4**	2	Norman Bromley (M&E) confirmed that they could provide an IAQP It was confirmed on 5.11.19 that low VOC products and the testing of such products would be included within future specifcations
Hea 4	Thermal comfort	To ensure the building is capable of providing an appropriate level of thermal comfort.	**3**	**3**		Norman Bromley (M&E) confirmed that thermal modelling was being carried out
Hea 5	Acoustic Performance	To ensure the building is capable of providing an appropriate acoustic environment to provide comfort for building users.	**3**	**3**	2	RBA Acoustics have been appointed to provide guidance on acoustics
Hea 6	Security	To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site	**1**	**1**		An Officer from the Metropolitan Police has been appointed to provide security advice, the scheme is also seeking Secured by Design accreditation
Hea 7	Safe & Healthy Surroundings	To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users	**2**	**2**		The requirements in relation to this credit were provided to AHR architects on 16/10 who will provide a technical note on this topic

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Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	RIBA Stage	Notes
Energy						
Ene 1	Reduction of CO2 Emissions	To minimise operational energy demand, primary energy consumption and CO_2 emissions..	**13**	**6**		Norman Bromley (M&E) have provided a BRUKL for the community centre which demonstrates that an EPRnc of 0.635 can be achieved
Ene 2	Energy Monitoring	To encourage the installation of energy sub-metering to facilitate 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.	**2**	**2**		Norman Bromley (M&E) have confirmed that there will be sufficient energy monitoring installed
Ene 3	External Lighting	To reduce energy consumption through the specification of energy efficient light fittings for external areas of the development.	**1**	**1**		Norman Bromley (M&E) have confirmed that the lighting will be energy efficient in line with BREEAM requirements
Ene 4	Low zero carbon technologies	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	**3**	**2**	2	Norman Bromley (M&E) confirmed that an Energy Statement was being carried out for planning purposes
Ene 8	Energy efficient equipment	To encourage installation of energy efficient equipment to ensure optimum performance and energy savings in operation.	**2**	**2**		The exact specification of plug in equipment is not yet known, however it was felt on 5.11.19 that the equipment installed would be representative of office scale equipment i.e. printers, computer, phones, etc. and therefore this credit could be targeted
Transport						
Tra 1	Public transport Accessibility	To reward awareness of existing local transport and identify improvements to make it more sustainable.	**2**	**2**	1	A Travel Plan is being produced by PBA
Tra 2	Proximity to amenities	To maximise the potential for local public, private and active transport through provision of sustainable transport measures appropriate to the site.	**10**	**7**	1	The Accessibility Index of the site is greater than 8, but will not be improved as a result of the project. The site is well positioned with access to amenities including a post box, cash machine and food outlet, whilst outside space for recreational will be provided as part of the scheme. It was confirmed on 5.11.19 that a real-time public information system stating bus times and tube services could be provided. There are no general car parking spaces provided within the scheme.
Water						
Wat 1	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.	**5**	**4**		The specification of lower water use fittings such as dual flush toilets and low flow taps will enable these credits to be sought.
Wat 2	Water monitoring	To reduce the consumption of potable water in new buildings through the effective management and monitoring of water consumption.	**1**	**1**		Norman Bromley (M&E) have confirmed that there will be water meters provided in line with BREEAM requirements
Wat 3	Major leak detection and prevention	To reduce the consumption of potable water in new buildings through minimising wastage due to water leaks.	**2**	**2**		Norman Bromley (M&E) have confirmed that there will be leak detection systems and solenoid valves provided in line with BREEAM requirements

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Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	RIBA Stage	Notes
		Materials				
Mat 1	Environmental Impact from Construction Materials - LCA	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.	**7**	**4**	2	A Life Cycle Analysis has been undertaken by Hodkinson which demonstrates that the scheme has the ability to achieve 3 credits for choosing materials that have lower embodied carbon whilst also meeting the necessary structural elements imposed by the schemes design requirements. Furthermore, the work has been undertaken by a third party specialist whilst enables an additional credit to be sought.
Mat 2	Environmental Impact from Construction Materials - EPD	To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.	**1**	**0**		At this stage the level of detail concerning Environmental Product Details is not known and therefore this credit will be assessed at a later stage.
Mat 3	Responsible sourcing of construction products	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.	**4**	**3**	1	It will be a requirement of Wates as the principal contractor to source materials from suppliers who have third party environmental certification
Mat 5	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.	**1**	**1**		The requirements in relation to this credit were provided to AHR architects on 16/10 which will provide a technical note on this information
Mat 6	Material Efficiency	To avoid unnecessary materials use arising from over specification without compromising structural stability, durability or the service life of the building.	**1**	**1**	1	The requirements in relation to this credit were provided to AHR architects on 16/10 which will provide a technical note on this information
		Waste				
Wst 1	Construction Site Waste Management	To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.	**4**	**4**	2	It will be a requirement of Wates as the Principal Contractor to operate a SWMP which has high targets for diversion from landfill and low targets for waste generation. There is no demolition associated with this development.
Wst 2	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.	**1**	**0**		The location of aggregates is currently unknown, further information is required
Wst 3	Operational Waste	To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.	**1**	**1**		There will be a designated waste storage area which is be sized sufficiently and appropriately labelled
Wst 5	Adaption 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.	**1**	**1**	2	The requirements in relation to this credit were provided to AHR architects on 16/10 which will provide a technical note on this information
Wst 6	Designing 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.	**2**	**2**	2	The requirements in relation to this credit were provided to AHR architects on 16/10 which will provide a technical note on this information

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Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	RIBA Stage	Notes
Land Use & Ecology						
LE1	Site selection	To encourage the use of previously occupied or contaminated land and avoid land which has not been previously disturbed.	**2**	**0**		The site was no previsouly contaminated and does not contain significant amounts of hard standing
LE2	Identifying and understanding the risks and opportunities for the site	To determine the ecological baseline and zone of influence of the site and identify risks and opportunities for achieving optimum outcomes.	**2**	**2**		The BREEAM Ecology proforma completed by Stantec based on the work undertaken by DF Clarke demonstrates that 2 credits can be achieved
LE3	Managing negative impacts	To avoid, or limit as far as possible, negative impacts on the ecology of the site and its zone of influence arising as a result of the project.	**3**	**3**		The BREEAM Ecology proforma completed by Stantec based on the work undertaken by DF Clarke demonstrates that 3 credits can be achieved for managing negative impacts
LE4	Enhancement of ecological value	To enhance the ecological value of the site and areas within its zone of influence in support of local, regional and national priorities.	**4**	**4**		The BREEAM Ecology proforma completed by Stantec based on the work undertaken by DF Clarke demonstrates that 4 credits can be achieved for enhancing site ecology
LE5	Long term impact on biodiversity	To secure ongoing monitoring, management and maintenance of the site and, its habitats ecological features to ensure intended outcomes are realised for the long term.	**2**	**2**		The recommendations from the Ecologist will be followed, with the site workforce sufficiently trained. A landscape management plan will be produced in relation to the soft landscaping which is being introduced.
Pollution						
Pol 1	Impact of refrigerants	To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.	**3**	**1**		Norman Bromley (M&E) have confirmed that there will be leak detection system in line with BREEAM requirements
Pol 2	Local Air Quality	To contribute to a reduction in local air pollution through the use of low emission combustion appliances in the building.	**2**	**2**		Norman Bromley (M&E) have confirmed that the heating and hot water systems will be powered by electricity rather than gas.
Pol 3	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-site and off-site, watercourse pollution and other environmental damage.	**5**	**4**		The requirements in relation to FRA and drainage have been provided to Stantec Civils, how have confirmed that the development is within Flood Zone 1 and therefore has a low probability of flooding and that the run-off rate and volume will meet BREEAM requirements. This information can be found within the FRA and Drainage Strategy that accompanies the planning application.
Pol 4	Reduction of Night Time Light Pollution	To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, thereby reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.	**1**	**1**		Norman Bromley (M&E) have confirmed that the lighting will not lead to an increase in night time light pollution in line with BREEAM requirements
Pol 5	Reduction of Noise Pollution	To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noisesensitive buildings.	**1**	**1**		RBA Acoustics have been appointed to provide guidance on acoustics
Innovation - Exemplary Level Criteria						
Innovation/Exemplar			**10**			

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Abbey Road Phase 2 Community Centre

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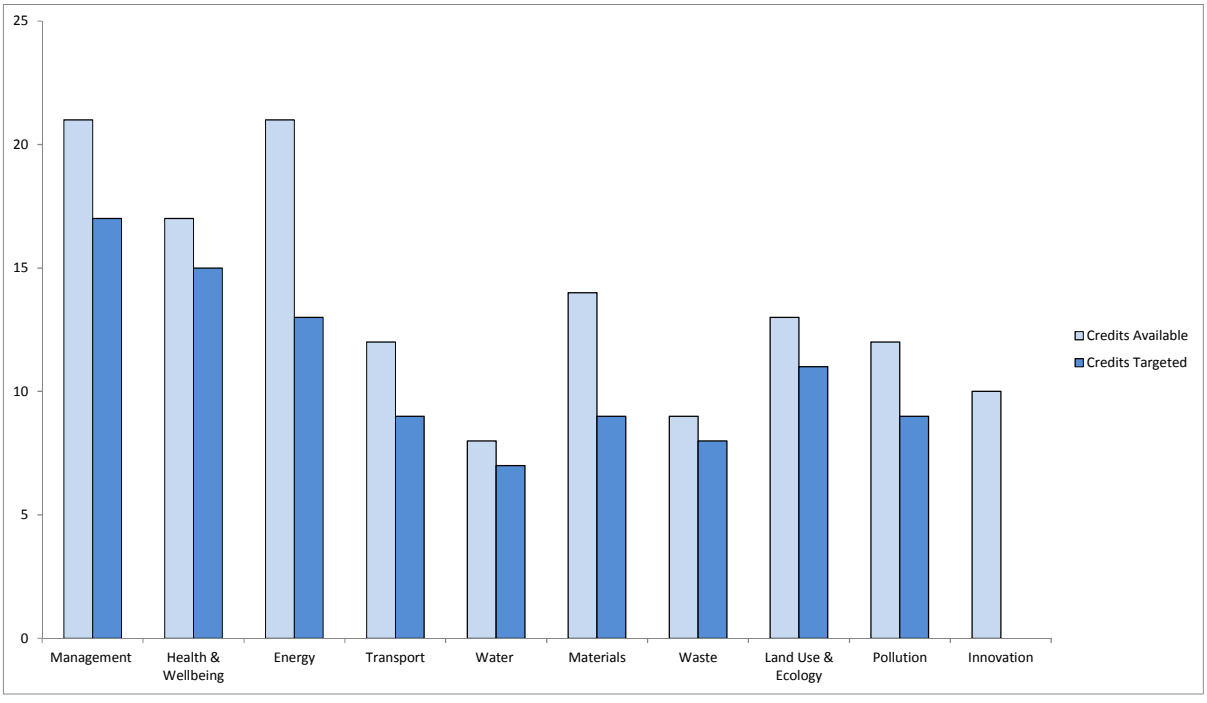
Building Name:	Abbey Road Phase 2 Community Centre
BREEAM Registration No.:	TBC
BREEAM Assessor:	Richard Knight

Pass	30%
Good	45%
Very Good	55%
Excellent	70%
Outstanding	85%

Stage of Assessment	BREEAM Score	BREEAM Rating
Pre-assessment	76.76%	Excellent

Building Performance by Section

	Environmental weighting	Credits Available	Credits Targeted	% Targeted	Weighted Score
Management	11.00%	21	17	80.95%	8.90%
Health & Wellbeing	14.00%	17	15	88.24%	12.35%
Energy	16.00%	21	13	61.90%	9.90%
Transport	10.00%	12	9	75.00%	7.50%
Water	7.00%	8	7	87.50%	6.13%
Materials	15.00%	14	9	64.29%	9.64%
Waste	6.00%	9	8	88.89%	5.33%
Land Use & Ecology	13.00%	13	11	84.62%	11.00%
Pollution	8.00%	12	9	75.00%	6.00%
Innovation	10.00%	10	0	0.00%	0.00%
Total BREEAM Score					**76.76%**



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