

Sustainability Statement

Brunel Retail Park, Reading

Prepared for MCTGF Trustee 1 Ltd & MCTGF Trustee 2 Ltd as Joint Trustees for the Mayfair
Capital TGF Jersey Property Unit Trust
November 2020



envision

The logo for 'envision' features the word in a lowercase, sans-serif font. Below the text is a graphic element consisting of two wavy lines: a green one on top and a blue one on the bottom, both curving from left to right.

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EXECUTIVE SUMMARY

1. This Sustainability Statement, incorporating a BREEAM Pre Assessment has been prepared by Envision on behalf of Mayfair Capital (the applicant), and is submitted to support a planning application for site-wide redevelopment to provide two industrial units at the Brunel Retail Park in Reading. The application proposes 'Demolition of existing retail park (Class E); erection of 2no. commercial buildings for use within Classes E (light industrial), Class B2 and Class B8 along with access and servicing arrangements, car parking, landscaping and associated works'.
2. Two further applications are also submitted concurrently for the site, involving:
 - **Application 2** Part change of use and external alterations to facilitate subdivision of Unit 7 to accommodate the displaced Shoezone, Subway and Costa units (inc. 10,000sq ft).
 - **Application 3** External alterations to and amalgamation of Units 3a and 3b to accommodate the displaced B&M including the creation of an external sales area.
3. This sustainability statement, incorporating a BREEAM Pre Assessment focuses on the construction of two industrial warehouses (Application 1). The primary purpose of this document to explain how the scheme can meet with Reading Borough Council's sustainability policies.
4. Envision have undertaken a review of the relevant policies and worked with the design team to determine and agree the relevance and approach that should be taken to fulfil each policy.

Summary of Sustainability Measures

5. The scheme will deliver a series of sustainability measures which are compatible with RBC's requirements for sustainable design and construction:
 - A high-quality and flexible industrial development designed to meet BREEAM Excellent;
 - An energy strategy designed to meet BREEAM Excellent, incorporating air source heat pumps to condition the ancillary office spaces, plus a total of 300 m² of PV across the two units. Further details are provided in a separate Energy Statement, which supports the application;
 - A SuDs strategy to achieve at least a 30% reduction in peak discharge rates in comparison with the existing regime;
 - The units will incorporate rainwater harvesting for flushing WCs;
 - 10% of the car park will incorporate electric vehicle charging points;
 - Cycle spaces and other travel planning measures, including the provision of showers for staff;
 - Sustainable material selections with timber to be procured with Forest Stewardship Council accreditation;

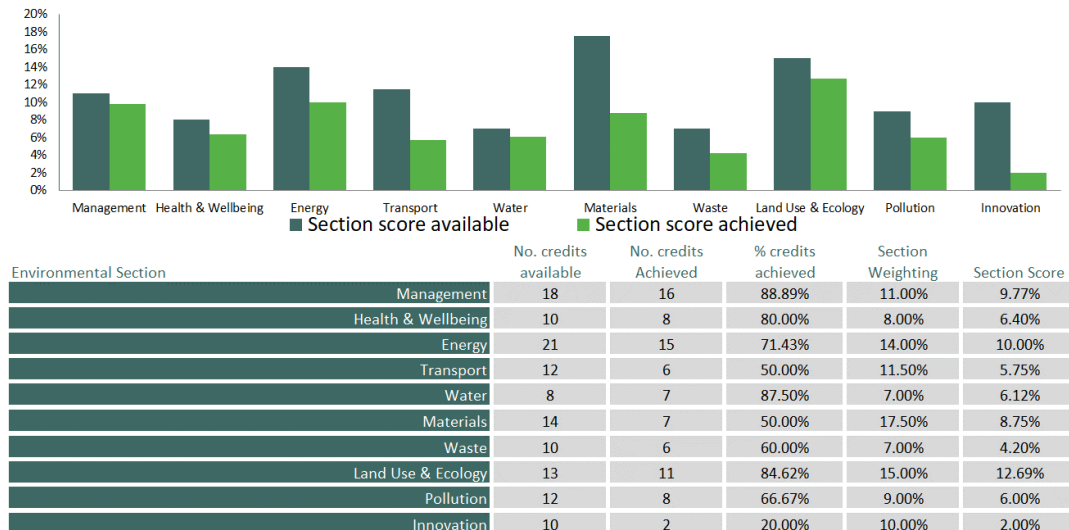
- Attainment of biodiversity net gain through the protection of existing features and the enhancement of the park with additional ecologically beneficial landscaping;
- Responsible construction practices during site construction, including a pre-demolition audit and a site waste management plan;
- Wellbeing measures, including good levels of natural light and external amenity space for staff.

Summary of BREEAM Pre Assessment

6. BREEAM predictive assessments have been undertaken for the proposed development units 1 and 2. These have considered the possible performance of the development against BREEAM. The two units are above 1000 m² and therefore it is considered that a BREEAM Excellent rating should be sought in accordance with Policy CC2. The BREEAM predictive assessments identify that the development aligns to an Excellent rating, Further details on BREEAM is provided in Appendix 1. The pre assessment for Unit 1 has been provided, albeit that similar scoring can be expected for each.

Building name	Brundel RP
BREEAM rating	Excellent
Total Score	71.60%
Min. standards level achieved	Excellent level

Building Performance by Environment Section



1. INTRODUCTION

- 1.1 Envision is a dynamic building services, energy and sustainability consultancy, dedicated to providing strategic and technical advice to clients through all phases of planning and development.

Scope

- 1.2 This Sustainability Statement, incorporating a BREEAM Pre Assessment provides information on the sustainable design and construction commitments of the project.

- 1.3 This statement is structured as follows:

- Section 2 provides a description of the site and the development proposals;
- Section 3 provides a description of the main sustainability & energy policies relevant to the application;
- Section 4 provides a sustainability statement, structured against the requirements of the sustainability policies examined in Section 3 and in particular RBC's sustainable design and construction checklist (2019);
- Section 5 provides a concluding summary.
- The BREEAM PRE Assessments are provided as appendices.

2. CONTEXT AND PROPOSALS

Location & Existing Situation

- 2.1 The Brunel Retail Park is located to the south of Reading town centre, with access obtained from the A33 via Rose Kiln Lane. The Brunel Retail Park comprises a terrace of retail warehouse units in an L formation, with a total floor area of 121,939 sq. ft. The general arrangements of the existing site are shown in figure 2.1.



Figure 2.1 – Existing Site Arrangements

The Proposed Development

- 2.2 The applicant proposes three planning applications for the site. The primary planning application, with which this statement refers, involves 'Demolition of existing retail park (Class E); erection of 2 no. commercial buildings for use within Classes E (light industrial), Class B2 and Class B8 along with access and servicing arrangements, car parking, landscaping and associated works'.
- 2.3 A further two applications are also proposed, part of an asset management strategy for the site. These includes:
- **Application 2** Part change of use and external alterations to facilitate subdivision of Unit 7 to accommodate the displaced Shoezone, Subway and Costa units (inc. 10,000sq ft).
 - **Application 3** External alterations to and amalgamation of Units 3a and 3b to accommodate the displaced B&M including the creation of an external sales area.



Figure 2.2 – Proposed Development – Application 1

3. SUSTAINABILITY POLICY CONTEXT

- 3.1 A key mechanism for delivering the principles of low-carbon development lies within the UK planning system, which is implemented through national guidance along with regional and local planning policies. A review of all the relevant policy documents was undertaken in order to gain an understanding of the guiding policies for sustainable design.

National Planning Policy Framework

- 3.2 The revised National Planning Policy Framework (NPPF) was published on 19th February 2019. It sets out the framework for all planning policy in England and how these are expected to be applied. The NPPF sets out a presumption in favour of sustainable development, and the need to support economic growth through the planning system.
- 3.3 Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives:
- an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
 - a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
 - an environmental objective – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.
- 3.4 Planning plays a key role in helping shape places to radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development. The NPPF does not include detailed measures on sustainable design codes and standards to apply, although expects that when setting any local requirement for a building's sustainability, local planning authorities should do so in a way consistent with the national technical standards.

Reading Borough Council Planning

- 3.5 The most relevant policies which need to be considered when assessing the scheme's compliance to sustainability policy are those provided within local development documents. Reading Borough Council (RBC) is currently working to two primary documents relating to sustainability:

1. Reading Borough Local Plan (Adopted November 2019);
2. Sustainable Design & Construction SPD (Adopted December 2019).

- 3.6 The policies and guidance pertinent to the sustainability of the development from the aforementioned policy documents are as follows:

Policy CC2: Sustainable Construction and Design

- 3.7 This policy requires proposals for new development, including the construction of new buildings to comply with the following:

1. The design of buildings and site layouts must use energy, water, minerals, materials and other natural resources appropriately, efficiently and with care and take account of the effects of climate change;
2. All major non-residential developments or conversions to residential are required to meet the most up-to-date BREEAM 'Excellent' standards, where possible;
3. All non-residential development ... should incorporate water conservation measures so that predicted per capita consumption does not exceed the appropriate levels set out in the applicable BREEAM standard. Non-residential development should include recycling greywater and rainwater harvesting where systems are energy and cost effective.

Policy CC3: Adaptation to Climate Change

- 3.8 This policy requires proposals for new development to incorporate measures to adapt to climate change including:

1. New buildings shall be orientated to maximise the opportunities for both natural heating and ventilation and reducing exposure to wind and other elements;
2. Proposals involving both new and existing buildings shall demonstrate how they have been designed to maximise resistance and resilience to climate change for example by including measures such as solar shading, heating and ventilation of the building and appropriately coloured materials in areas exposed to direct sunlight, green and brown roofs, etc.
3. Use of trees and other planting, where appropriate as part of a landscape scheme, to provide shading of amenity areas, buildings and streets and to help to connect habitat, designed with native plants that are carefully selected, managed and adaptable to meet the predicted changed climatic conditions; and
4. All development shall minimise the impact of surface water runoff from the development in the design of the drainage system, and where possible incorporate mitigation and resilience measures for any increases in river flooding levels as a result of climate change.

Policy CC4: Decentralised Energy

- 3.9 Any development of more than 20 dwellings and/ or non-residential development of over 1,000 sq. m shall consider the inclusion of decentralised energy provision, within the site, unless it can be demonstrated that the scheme is not suitable, feasible or viable for this form of energy provision.

Policy CC5: Waste Minimisation & Storage

- 3.10 Development should demonstrate measures to minimise the generation of waste in the construction, use and life of buildings and promote more sustainable approaches to waste management, including the reuse and recycling of construction waste and the promotion of layouts and designs that provide adequate, well-designed space to facilitate waste storage, reuse, recycling and composting.

Policy EN18: Flooding & Sustainable Drainage Systems

- 3.11 Development will be directed to areas at lowest risk of flooding in the first instance, following the Sequential and Exceptions Test set out in the NPPF, and taking into account the effects of climate change. It will consider flooding from all sources, including fluvial, surface water, groundwater and sewer flooding. Where development in areas at risk of flooding is necessary, it will not reduce the capacity of the flood plain to store floodwater, impede the flow of floodwater or in any way increase the risks to life and property arising from flooding. Wherever possible, development should be designed to reduce flood risk, both on- and off-site.
- 3.12 All major developments must incorporate sustainable drainage systems (SuDS) as appropriate and in line with the Government's Technical Standards. Smaller schemes are encouraged to incorporate SuDS, where possible. Runoff rates should aim to reflect greenfield conditions and, in any case, must be no greater than the existing conditions of the site

Sustainable Design Checklist (Sustainable Design & Construction SPD)

- 3.13 For major applications, a Sustainability Statement based on a sustainability checklist should be submitted at the submission stage. The sustainable design and construction checklist is based on the BREEAM standards but are not a complete repetition of these requirements. They are intended to help provide pointers as to the type of considerations that the development should be taking into account in order to achieve relevant standards of the BREEAM and thereby comply with policies CC2-CC5 and EN18.¹

¹ The sustainability checklist forms the structure of the sustainability statement.

4 SUSTAINABILITY STATEMENT

- 4.1 This section provides an account of the sustainability benefits of the proposed development, and how relevant policy will be addressed in the development proposals. The section is structured against the Sustainability Checklist as detailed in Appendix 1 of the Reading Borough Council (RBC) Sustainable Design & Construction SPD, thereby demonstrating compliance with policies CC2-CC5 and EN18 of the RBC local plan.

Non-Residential Sustainability Checklist

Table 4.1 – Sustainability Checklist (Non-Residential)

Management	
<i>Aim: To recognise and encourage environmentally and socially considerate development.</i>	
Criteria	Design & Construction Commitments
Will guidance for the non-technical building user be provided so they can understand and operate the building efficiently and understand how the design reduced the overall environmental impact of the building and raise environmental awareness?	The proposed commercial uses will be taken forward on a speculative basis and assessed as shell and core. The aftercare credits in BREEAM under Shell and Core do not include requirements for building user guides, which generally focus on the building controls. Details will be provided in the O&M manuals and health and safety files regarding building performance.
What consideration has been given to resource use, energy consumption and pollution in terms of the construction site impacts?	The principal contractor will be required to deliver high standards of sustainable construction, which will be achieved through the following: • Registering the site against the Considerate Constructors Scheme; • Managing the construction site to reduce environmental effects, this will include adopting best practice measures to protect water and air quality, monitoring water and energy use from construction activities.
Will site investigation and appropriate remedial action be undertaken?	The site has been subject to a Phase 1 environmental review. There is no requirement for remedial actions, saving for ground capping and gas protection measures.

Will the community and stakeholders be involved in the design process encouraging flexibly designed buildings which cater for shared use with the local community?	Application 1 proposes redevelopment for light industrial / logistics uses. This is to reflect the changing nature of commerce. The development is being taken forward with inputs from commercial leasing agents to understand the requirements of these sites so that they are flexible and attractive for future occupiers. The buildings will be designed to be flexible and could be taken by a range of operators. In general no community consultation has been deemed necessary at the site.
How has the building been designed to reduce the opportunity for and the fear of crime?	The proposed development is being taken forward with input from a professional design team with experience in designing safe and secure environments. The building will include perimeter fencing and external lighting to maintain security at night. The site will be enabled for CCTV. The scheme will be subject to consultation with a security expert and recommendations adopted.
What consideration has been given to the maintenance of the building?	The building will be brought forward speculatively. Through inputs with commercial agents, the development will be designed to be institutionally acceptable and able to be leased to a range of future occupiers. Maintenance will be the obligation of the tenants, however design considerations will inform the future maintenance strategy to ensure that the building is safe and easy to run.
Health & Wellbeing <i>Aim: To ensure a good quality amenity level is afforded to occupants of buildings</i>	
Criteria	Design & Construction Commitments
How has the development been designed to ensure users have sufficient daylight, an external view, adequate and appropriate lighting, ventilation, air quality and drinking water?	The warehouses will include 15% roof light coverage to provide good levels of natural light within the main space. The ancillary office areas are also designed with windows, which should permit good levels of natural daylight for future occupants. Proposals for drinking water would be up to the future tenants, albeit that the scheme will be flexible to enable these features.

Energy & CO₂ Reduction <i>Aim: To conserve energy, in particular carbon dioxide emissions and maximise the use of energy efficient techniques.</i>	
Criteria	Design & Construction Commitments
How has the building been designed to minimise CO ₂ emissions associated with their operational energy consumption?	The building will be designed to be energy efficient in line with the requirements for BREEAM Excellent. The main warehouse area is expected to be unheated, and passive design features such as rooflights have been incorporated. Thermal values will improve upon the upper limit values as detailed in Part L2a of Building Regulations.
How has the development been designed to optimise the use of the energy from the sun, natural daylighting and controlled natural ventilation?	The industrial units will be designed with good levels of glazing promoting daylighting into the ancillary office spaces and warehouse floor through the provision of 15% roof lights. The building will be naturally ventilated, save for mechanical ventilation provided in the washroom and kitchenette area.
How has the development been designed to optimise natural daylighting, energy efficient lighting, external lighting and natural ventilation?	The warehouse will be provided with rooflights which should enable the warehouse to function with limited internal lighting on bright days. The tenant would be responsible for the installation of lighting in the warehouse areas. A fit out guide will be a requirement of their lease, which ensure that they install highly efficient LED lighting.
How will the design of the building make efficient use of energy? (e.g. use of thermally massive materials, levels of insulation, energy efficient white goods and use of green/brown roofs etc.).	The majority of floor area will be unheated. The development will be specified with a highly insulated fabric and low air permeability, resulting in a high level of fabric energy efficiency.
Have renewable energy sources or decentralised energy been considered for this development and if so, how would they be incorporated within the development?	The commercial units will be fitted out by the tenants in accordance with a design brief which follows the principles established by this statement. Renewable energy generation will be provided in the form of air-source heat-

	pumps, which will provide high-efficiency space heating, with the option of cooling. PV is also proposed on the roof of the two industrial units. A total of 300 m ² of PV will be provided across the two units to assist the warehouse meet with BREEAM Excellent for the energy credits.
Transport	
Aim: To reduce the need to travel through appropriately located development.	
Criteria	Design & Construction Commitments
How has the design and layout incorporated measures to reduce the need to travel, especially by car, and promote alternative and sustainable modes of transport such as walking, cycling and the use of public transport?	The planning application is submitted with a transport statement and Travel Plan which explains the approach taken to promote sustainable forms of transport. The scheme incorporates travel planning measures, including cycle storage and showers as part of the base spec. The scheme will also be enabled to provide 10% electric vehicle charging plus further capacity should the tenant require electrification of their logistics vehicles and forklift trucks.
How have deliveries and the manoeuvring of delivery vehicles been considered?	Swept path analysis has been undertaken for vehicular access points. The scheme proposes separate accesses for the units to mitigate congestion on the local road network. Within the service yards there is good provision for turning and manoeuvring space.
Water	
Aim: To improve efficiency in the use of water, conserve water resources and minimise vulnerability to flooding.	
Criteria	Design & Construction Commitments
How will the development incorporate the use of water saving devices to achieve a maximum consumption of 5.5 cubic m per year per person for office developments? (or the most appropriate benchmark for other types of development).	The scheme is being brought forward on a shell and core basis, with water consuming fittings being installed by the applicant for WCs and showers. Water consumption for industrial / logistics buildings will vary depending on the end use. The water demand associated with fixed services is limited to showers, WCs and taps. These will be designed in accordance with BREEAM standards, and a 40% improvement may be expected from the notional building as calculated by BREEAM.

Will the development and access to and from it such as roads and paths be located away from areas of potential flooding?	Safe access to and from the site is a matter which has been addressed within the Flood Risk Assessment. The new development and all accesses will be located in Flood Zone 1.
How will the development incorporate harvesting and re-use of rainwater?	There is limited external landscaped amenity area that would benefit from a rainwater harvesting system. Instead, the proposed drainage strategy will limit surface water discharge through the use of a green roof system with a connection to the existing surface water drainage network.
Does this development meet the requirements of EN18?	EN18 directs development away from areas that are liable to flood. In areas of lower risk, development may move forward if it passes the exception test in the NPPF. It also requires major developments to incorporate Sustainable Drainage Systems (SuDS). The scheme demonstrates alignment with this policy. The majority of the site is within Flood Zone 1, albeit that a small area falling in Zone 2 is located to the west of the site. All development is located outside this zone. A Flood Risk Assessment and drainage strategy is submitted in support of the application.
Materials <i>Aim: To retain local character and promote the use of materials with a low environmental impact.</i>	
Criteria	Design & Construction Commitments
How will the selected materials help retain local character, ensure long life and ensure a low environmental impact?	Maximising the sustainability of all the materials used in the build will be an important factor from the outset. The development will be designed and constructed as to maximise the sustainability of materials. The client will ensure the following standards are met in the development: Developing a sustainable procurement plan for the development, with the objective to reduce transport miles wherever possible.

	• All timber and timber products are to be sourced from accredited Forest Stewardship Council (FSC) or Programme for the Endorsement of Forestry Certification (PEFC) scheme; • No construction or insulation materials are to be used which will release toxins into the internal and external environment, including those that deplete stratospheric ozone. • Materials and construction details will be assessed with regard to a durability and robustness study.
What consideration has been given to reusing materials in-situ, responsibly sourcing materials and re-using existing structures?	The existing site will be appraised for reusing materials in situ, for example to create a piling mat for the construction of the new units. There will be limited opportunities to reuse significant materials, as there will generally be a need to remove material from site. This will be optimised as far as possible to reduce vehicle movements. Consideration to the reuse of the shopping centre through asset management is also being developed, with Applications 2 and 3 focusing on reuse and repurposing the existing Brunel Retail Park. This is driven by market conditions.
Waste <i>Aim: To minimise the production of waste and maximise re-use and recycling.</i>	
Criteria	Design & Construction Commitments
Has an audit of the materials present on the site been conducted with an assessment of the extent to which materials could be re-used?	A pre demolition audit will be undertaken before detailed design progresses and prior to demolition works to consider what options exist to recover materials.
How will the development make the maximum use of construction, demolition waste and recycled materials?	A site waste management strategy will be prepared for the construction phase of the development, which identifies measures to minimise construction waste, and maximise the use of demolition and construction waste. This is expected to generally be for off-site applications due to restrictions on site.

How will provision be made for the storage and recycling of waste for all users of the site?	Commercial waste storage space would take account of the requirement for BREEAM, including for provision of suitable space for separate general and recyclable waste streams.
Land Use & Ecology <i>Aim: To retain, protect and enhance wildlife habitats and natural features.</i>	
Criteria	Design & Construction Commitments
How have the wildlife habitats and natural features on and adjacent to the site been considered and how will they be retained, protected and enhanced?	The development proposals aim to retain features of existing interest and enhance these with an increase in quality and quantity of landscape planting. The objective is to attain biodiversity net gain.
What consideration has been given to not using previously undeveloped land?	The site is located within an urban area and on previously developed land.
What consideration has been given to the removal of contamination from the land?	The site has been subject to a phase 1 risk preliminary risk assessment to consider ground conditions and the requirements for remediation. The western part of the site lies above a former landfill site. Given the site has previously been developed, and reflecting the nature of the proposed uses, there is not expected to be a need for remediation. The site will be capped and gas protection measures put in place. No further work is proposed, subject to more detailed intrusive investigations.
Pollution <i>Aim: To minimise damage to the environment through air, ground/surface water, land, noise or light pollution.</i>	
Criteria	Design & Construction Commitments

What measures have been incorporated to ensure that noise and light pollution will be minimised through the development?

The development is not of the scale that would require an Environmental Impact Assessment (EIA), however the measures as outlined in this section, and subsequently implemented, will ensure that any potential impacts can be appropriately controlled in order to demonstrate compliance with Local Plan Policy EN16: Pollution & Water Resources.

Noise

A Noise Assessment has been submitted with this application. The nearest receptors to the site are residential properties to the rear. Due to the nature of the development, noise from mechanical plant and equipment is not considered to have a significant impact. Consideration has also been given to noise emanating from servicing vehicles associated with the operation of the development, with proposals put forward to manage potential impacts arising.

External Lighting

The planning application is submitted with an external lighting layout which is designed in accordance with BREEAM. The scheme will limit upward lighting and ensures external lighting is controlled to reduce nuisance and save energy. External lighting will be designed in compliance with Table 1 and accompanying notes of ILE Guidance Note for reduction of obtrusive light. All non-safety/security lighting will be automatically switched off between 2300hrs and 0700hrs.

What consideration has been given to reducing refrigerants and minimising nitrogen oxide emissions?

The scheme will use refrigerant based heating and cooling systems. These are anticipated to have limited refrigerant charge and the scheme should meet direct effect life cycle CO₂ equivalent emissions (DELC) of ≤1000 CO₂-eq/kW. With regards to nitrogen oxide emissions (NOx), no on-site fossil combustion

	will occur as the servicing strategy is fully electrified with the use of heat pumps, therefore no NOx emissions are expected.
What measures have been incorporated to reduce the release of pollution into the atmosphere?	The scheme is designed to operate without gas on the site, therefore there will be no release of atmospheric pollution from any heating or hot water. The building also incorporates EV charging points, helping to facilitate a move to electric vehicle charging.

5 CONCLUSION

- 5.1 This Sustainability Statement, incorporating a BREEAM Pre Assessment has been prepared by Envision on behalf of Mayfair Capital (the applicant), and is submitted to support a planning application for Site-wide redevelopment to provide two industrial units at the Brunel Retail Park, Reading. The application proposes 'Demolition of existing retail park (Class E); erection of 2no. commercial buildings for use within Classes E (light industrial), Class B2 and Class B8 along with access and servicing arrangements, car parking, landscaping and associated works'.
- 5.2 To promote sustainable design and construction of the development and to ensure compliance with Reading Borough Council (RBC) policy CC2, the following design measures are proposed:
- A high-quality and flexible industrial development designed to meet BREEAM Excellent;
 - An energy strategy designed to meet BREEAM Excellent criteria Ene 01 (minimum 4 credits), incorporating air source heat pumps to condition the ancillary office spaces plus a total of 300 m² of PV across the two units;
 - A SuDs strategy to achieve a minimum of a 30% reduction in peak discharge rates in comparison with the existing regime;
 - The units will address principles of climate adaptation, including low water use fittings and fixtures and the incorporation of rainwater harvesting for flushing WCs;
 - 10% of the car parking will incorporate electric vehicle charging points in accordance with policy TR5;
 - Cycle spaces and other travel planning measures, including the provision of showers for staff;
 - Sustainable material selections with timber to be procured with Forest Stewardship Council accreditation;
 - Attainment of biodiversity net gain through the protection of existing features and the enhancement of the park with additional ecologically beneficial landscaping;
 - Responsible construction practices during site construction, including a pre-demolition audit and a site waste management plan; and
 - Wellbeing measures, including good levels of natural light and external amenity space for staff.
- 5.3 The development is therefore considered to comply with the sustainability & energy requirements outlined in the Reading Borough Council Local Plan (adopted November 2019) and the Reading Borough Council Sustainable Design & Construction SPD (Adopted December 2019).

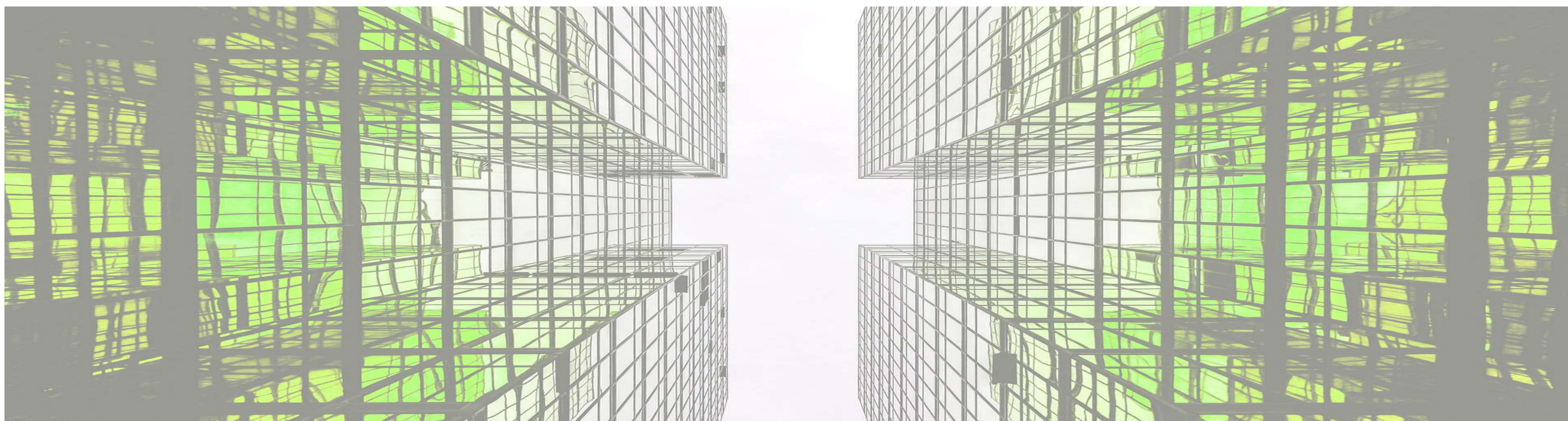
APPENDIX I – BREEAM PRE-ASSESSMENT

BREEAM Pre-Assessment

Brunel Retail Park

Prepared for Mayfair Capital Investment Management Limited

11 11 2020



Issue	Date	Reason for Issue	Author	Approved
Draft	21.05.2020	Pre-assessment - DRAFT	Zuzana Spicova	Simon Rainsford
Issue	11 11 2020	Planning Issue	Zuzana Spicova	Simon Rainsford

11 11 2020

Key Statistics

Will the building be heated and/or cooled?	Yes
Commercial/industrial refrigeration and storage systems	No
Building user transportation systems (Lifts)	Yes
Building user transportation systems (Escalators / moving walks)	No
Is demolition occurring under the developer's ownership?	Yes
Laboratory function/area and size category	No Laboratory
Laboratory containment level	No
Fume cupboards and/or containment devices	No
Are WC facilities only provided within the residential areas of long term stay?	No
Unregulated water uses present? (e.g. vehicle wash system, irrigation)	No
Does the building have external areas within the boundary of the assessed development?	Yes
Are there statutory requirements, or other issues outside of the control of the project, that impact the ability to provide outdoor space?	No
Industrial unit with operational areas & office space	Yes

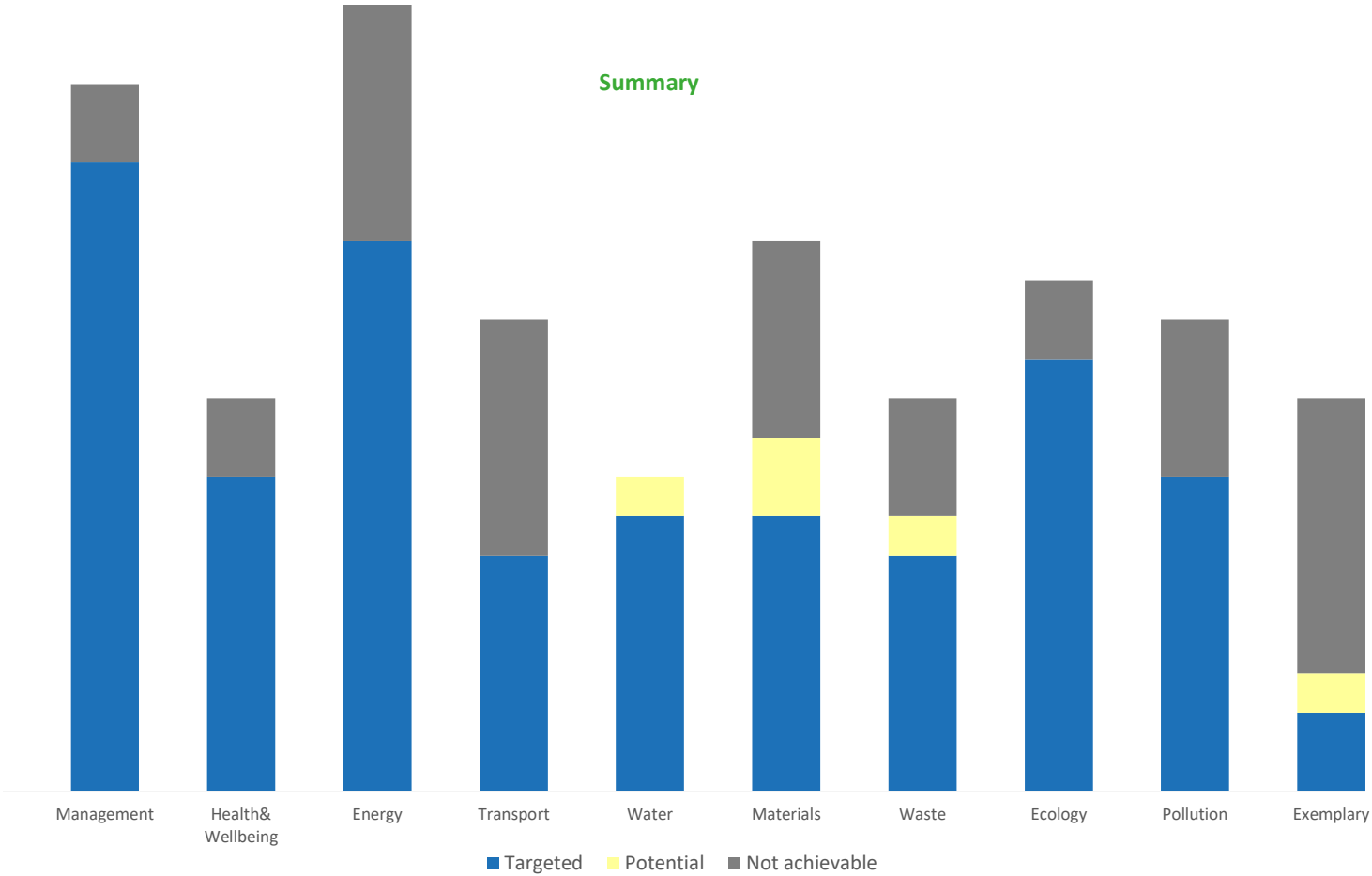


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Project Name: Brunel Retail Park
Prepared for: Mayfair Capital Investment Management Limited
Building Type: Industrial
Project Stage: Pre-Assessment
Project Stage: BREEAM NC 2018
Scheme: SD5078 Issue 3.0
Manual Version: Shell and Core
Project type: Excellent

The results, as illustrated in the summary graph below, indicates available, targeted, potential and achieved credits. The current targeted score as detailed overleaf confirm that the development could achieve a score of 71%, with potential additional credits to 76%.



1 INTRODUCTION

Envision has been appointed by Mayfair Capital Investment Management Limited to prepare a BREEAM predictive assessment for the proposed Brunel Retail Park at Rose Kiln Lane, Reading, RG2 0HS.

Project Description

The proposed development consists of demolition of part of the existing site to construct up to 2 new industrial units, Figure 1 provides an illustration of the proposed development.

Planning Policy Requirements

Reading Borough Local Plan, Nov 2019 and Sustainable Design and Construction SPD, Adopted Dec 2019 refer to Policy CC2: Sustainable Design and Construction and Policy CC3: Adaptation to Climate Change which are relevant to BREEAM assessment.

Policy CC2 seeks improved sustainability performance of buildings by meet the most up-to-date BREEAM ‘Excellent’ standards, where possible and BREEAM ‘Very Good’ standard as a minimum. As well as preserve water by not exceeding the levels set out in the BREEAM standard. However, policy acknowledges the limitations for industtrial units and accepts that the highest possible score achievable should be demonstrated.

Policy CC3 identifies measures including building orientation, shading, heating, ventilation, green or brown roofs and walls, planting and surface water run-off to deal with the effects of climate change. It highlights the importance of Strategic Flood Risk Assessment and Surface Water Management Plan.

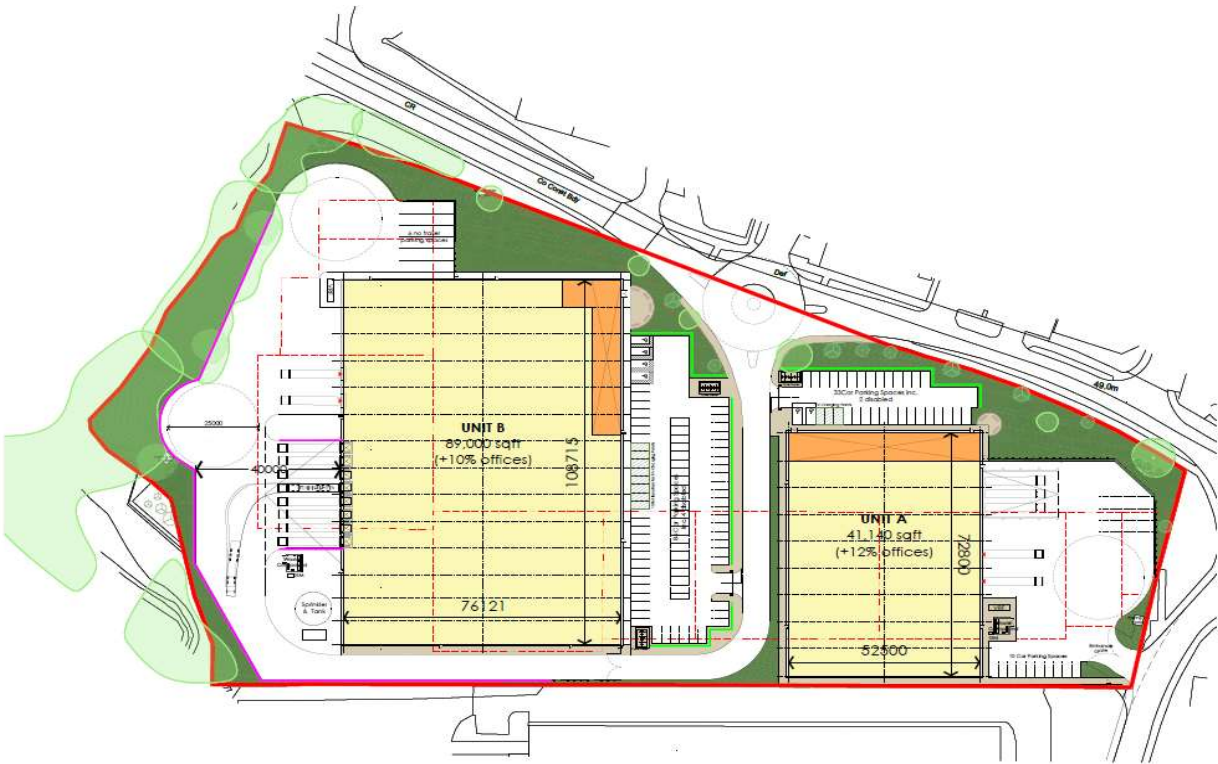
BREEAM Assessment Methodology

The development type has been defined, under BREEAM standards, as Industrial Shell & Core and will be assessed under the most recent version of BREEAM UK New Construction 2018.

Targeted Rating and Minimum Requirements

BREEAM ratings are awarded based on achievement of relevant minimum standards and % score. Table 1 shows the required scores for each rating benchmark, with the targeted rating for this assessment highlighted in green. The descriptor of level of good/best practice is also provided, in line with the terms used by BRE, as an indicator of level of sustainability performance.

Figure 1 Site Layout Plan



11 11 2020

Table 1 BREEAM scoring

PASS	GOOD	VERY GOOD	EXCELLENT	OUTSTANDING
30%+	45%+	55%+	70%+	85%+
Standard Good Practice	Intermediate Good Practice	Advanced Good Practice	Best Practice	Innovator

Project Name: **Brunel Retail Park**

Building Type: **Industrial**

Project Type: **Shell and Core**

Targeted BREEAM rating %	71.03	Excellent
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Potential BREEAM rating %	76.10	Excellent
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Achieved scoring %	0.00	Unclassified
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Credit Ref.	Credit Title	Credit Name	Available	Targeted	Potential	Mandatory	Responsibilities	RIBA Stage	Comments / Actions
MANAGEMENT									
Man 01	Project Brief and Design	Project Delivery Planning	1	0			Client/PM/Architect	2	A clear sustainability brief developed prior to concept design. Identify and define roles, responsibilities and contribution of project team for key phases of the project delivery.
		Stakeholder Consultation (Interested Parties)	1	0			Client/PM/Architect	2	Consult all relevant parties on minimum consultation content at RIBA Stage 2. Prior to completion of RIBA Stage 4 feedback to all relevant parties must be given and received.
		Pre-requisite for BREEAM Advisory Professional credits: Have the client & the contractor formally agreed performance targets?				Yes	Client/Contractor/BREEAM AP	2	BREEAM target must be formally agreed with the design team.
		BREEAM Advisory Professionals (AP) (Concept Design)	1	1			BREEAM AP	2	Appointment of BREEAM AP prior to RIBA Stage 2. BREEAM target must be formally agreed with the design team.
		BREEAM AP (Developed Design)	1	1			BREEAM AP	4	BREEAM AP monitor and report progress against agreed BREEAM performance targets throughout the project up to PC Stage.
Man 02	Life Cycle Cost and Service Life Planning	Elemental Life Cycle Cost (LCC)	2	2			LCC Specialist	2	An outline, entire asset elemental life cycle cost plan has to be carried out at RIBA stage 2 in line with Standardised method of life cycle costing for construction procurement PD 156865:2008.
		Component Level Life Cycle Cost Options Appraisal	1	1			LCC Specialist	4	A component level LCC plan has been developed by the end of RIBA Stage 4 in line with ‘Standardised method of life cycle costing for construction procurement’ PD 156865:2008.
		Capital Cost Reporting	1	1			Client/QS	4	Report the capital cost for the fit-out works in pounds per meter square (£/m2) via the BREEAM Assessment Scoring and Reporting tool.
Man 03	Responsible Construction Practices	Pre-requisite: Legal and sustainable timber				Yes	Contractor	4	All timber and timber-based products used during construction process of the project are legal and sustainable i.e. FSC or PEFC certified.
		Environmental Management	1	1			Contractor	4	Contractor operates EMS: certificate of ISO 14001, EMAS or have a structure that is in compliance with BS 8555:2003 and has reached stage four of the implementation stage. And implement best practice pollution prevention procedures: PPG6, Pollution Prevention Guidelines.
		Pre-requisite for BREEAM AP on site: Have the client & the contractor formally agreed performance targets?				Yes	Client/Contractor/BREEAM AP	4	BREEAM target must be formally agreed with the main contractor.
		BREEAM AP (Site)	1	1			Contractor	4	A BREEAM AP is appointed to monitor the project to ensure ongoing compliance with the relevant sustainability performance/process criteria, and therefore BREEAM target, during the Construction, Handover and Close Out stages.
		Responsible Construction Management Minimum Standard: 1 credit Excellent, 2 credits Outstanding	2	2		Yes	Contractor	4	Principal contractor achieves score register the site under the Considerate Contractors Scheme (CCS) or Fleet Operator Recognition Scheme (FORS) and achieves score required for targeted credits.
		Monitoring of Construction Site Impacts - Utility and Water Consumption	1	1			Contractor	4	Principal contractor monitor energy and water consumption on site.
		Monitoring of Construction Site Impacts - Transport of Construction Materials and Waste	1	1			Contractor	4	Principal contractor to monitor fuel consumption of transport of materials and waste to/from site.
Man 04	Commissioning and Handover	Commissioning - Testing Schedule and Responsibilities Minimum Standard: 1 credit Very Good, Excellent and Outstanding	1	1		Yes	Contractor/Specialist	4	Third party commissioning manager to be appointed. Testing schedule and responsibilities to be provided.
		Commissioning - Design and Preparation	1	1			Contractor/Specialist	4	Appointment of an appropriate project team member, provided they are not involved in the general installation works provide commissioning management.
		Testing and Inspecting Building Fabric	1	1			Contractor	4	Thermographic survey to be undertaken by professional holding a UKTA certificate and an airtightness test undertaken by professional holding with membership of ATTMA or IATS.
		Building User Guide Minimum Standard: 1 credit Very Good, Excellent and Outstanding				Yes	Client/Contractor	4	2 sets of building user guides to be developed: a technical and non-technical
		Handover	1	1			Contractor	4	A training schedule is prepared for building occupiers at handover including proposed occupation plans (introduction to Building User Guides, installed systems an key features, O&M manual, commissioning records, aftercare information).
MANAGEMENT		TOTAL	18	16	0				
		% of total score	11.00%	9.78%	0.00%				
		% of each credit	0.61%						

Credit Ref.	Credit Title	Credit Name	Available	Targeted	Potential	Mandatory	Responsibilities	RIBA Stage	Comments / Actions
HEALTH & WELLBEING									
Hea 01	Visual Comfort	Daylighting	1	1			Daylighting Specialist	3	Daylighting study to be carried out and achieve average daylight factor of 2% over 80% (100% room dependant) of the floor plate and a uniformity ratio of at least 0.3.
		View Out	1	1			Architect	3	95% of the floor area in 95% of spaces for each relevant building area is within 8 m of an external wall. The window or opening must be ≥ 20% of the surrounding wall area or compliance is sought via BS 8206.
		Internal and External Lighting Levels, Zoning and Controls	1	1			M&E Engineer	4	Internal lighting designed to provide lux levels in accordance with SLL Code for Lighting, CIBSE LG 7 and other relevant industry standards; and zoned to allow occupant control. External lighting designed in accordance with BS5489-1:2013 and BS EN 12464-2:2-14.
Hea 02	Indoor Air Quality	Pre-requisite: Indoor Air Quality (IAQ) Plan				Yes	Specialist	2	IAQ Plan to be developed.
		Ventilation	1	0			M&E Engineer	4	Provide fresh air into the building in accordance with the criteria of the relevant standard for ventilation. Consideration of carbon dioxide (CO ₂) or air quality sensors. Design intakes and exhaust 10m apart and from sources of external pollution or in accordance with BS EN13779:2007 Annex 2.
Hea 04	Thermal Comfort	Thermal Modelling	1	1			Energy Consultant	3	Thermal modelling to be carried out in accordance with CIBSE AM 11.Air conditioned building to be designed in accordance with CIBSE Guide A and the PMV & PPD to be reported; for naturally ventilated building consider overheating in line with CIBSE TM52/TM59.
		Design for Future Thermal Comfort	1	1			Energy Consultant	3	The thermal modeling demonstrates the building is designed for a projected climate change environment and for conditioned building report PMV & PPD.
Hea 05	Acoustic Performance	Acoustic Performance	1	1			Acoustician	3	Meet relevant acoustic performance standards for sound insulation, indoor ambient noise levels and reverberation. Suitably qualified acoustician to undertake calculation and testing requirements.
Hea 06	Security	Security of Site and Building	1	1	0		Security Specialist	2	Security Needs Assessment (SNA) undertaken by Suitably Qualified Security Specialist (SQSS) during RIBA Stage 2 and design embodies recommendations. Any deviation from recommendations to be justified and agreed with SQSS.
Hea 07	Safe and Healthy Surroundings	Safe Access	1	0			Architect/Specialist	4	Dedicated and safe cycle paths are provided from the site entrance to any cycle storage, and connect to off-site cycle paths. Pedestrian drop-off areas, delivery areas, dedicated parking or waiting areas are designed for vehicles.
		Outside Space	1	1			Architect	4	There is an outside space providing building users with an external amenity area.
HEALTH & WELLBEING		TOTAL	10	8	0				
		% of total score	8.00%	6.40%	0.00%				
		% of each credit	0.80%						

Credit Ref.	Credit Title	Credit Name	Available	Targeted	Potential	Mandatory	Responsibilities	RIBA Stage	Comments / Actions
ENERGY									
Ene 01	Reduction of Energy Use and Carbon Emissions	Energy Performance Minimum Standard: 4 credits Excellent, 6 credits Outstanding	9	4		Yes	Energy Consultant	4	Credits are achieved through energy modelling (BRUKL report) and reduction in regulated CO2 emissions.
		Prediction of Operational Energy Consumption Minimum Standard: 4 credits for Outstanding	4	4		Yes	Energy Consultant	4	Undertake energy workshop to focus on operation energy performance with design team and additional energy modelling during the design and post-construction stage to generate predicted operational energy consumption figures.
Ene 02	Energy Monitoring	Sub-Metering of End-Use Categories Minimum Standard: 1 credit Very Good, Excellent and Outstanding	1	1		Yes	M&E Engineer	4	Separate energy metering installed for each fuel type / use for 90% of estimated annual energy consumption, with pulsed output for future connection to energy management system.
		Sub-Metering of High Energy Load and Tenancy Areas	1	1			M&E Engineer	4	This requires sub metering of different functional areas. Meter to be connected to BMS or equipped with pulsed output for future connection to energy management system.
Ene 03	External Lighting	External Lighting	1	1			M&E Engineer	4	Average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt. Automatic control to prevent operation during daylight hours and presence detection in areas of intermittent pedestrian traffic.
Ene 04	Low Carbon Design	Passive Design Analysis	1	0			Energy Consultant	2	Hea 04 to be achieved. Analysis is carried out at RIBA Stage 2 and identifies passive design measures to reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption.
		Free Cooling	1	0			M&E Engineer	4	Passive design is achieved and any of the free cooling strategies are implemented: night time cooling; ground coupled air cooling; displacement ventilation; ground water cooling; surface water cooling; evaporative cooling; disiccant dehumidification and evaporative cooling, using waste heat; absorption cooling, using waste heat; building does not require any significant form of active cooling or mech. ventilation i.e. naturally ventilated.
		Low Zero Carbon Feasibility Study	1	1			Energy Consultant	2	LZC Study carried out at RIBA Stage 2 by an energy specialist to establish most appropriate low or zero carbon energy source(s). Technology(ies) to be specified and resulted in a meaningful reduction in regulated CO2 emissions.
Ene 06	Energy Efficient Transportation Systems	Energy Consumption	1	1			Lift Specialist	4	An analysi of the transportation demand and usage patterns is carried out and energy consumption has been estimated in accordance with BS EN ISO 25745 Part 2 and 3.
		Energy Efficient Features - Lifts	1	1			Lift Specialist	4	Energy efficient features offering the greatest potential energy savingsare to be specified: standby condition during off-peak periods; lift care lighting and display across is >70lamp lumens/circuit Watt; drive controller capble of variable speed, variable-voltage and variable-frequency. Where use of regenerative drive saves energy it needs to by specified.
		Energy Efficient Features - Escalators or Moving Walks	0	0			Lift Specialist	4	Specify a load-sensing device or a passenger-sensing device for each escalator or moving walk.
ENERGY		TOTAL	21	14	0				
		% of total score	14.00%	9.33%	0.00%				
		% of each credit	0.67%						

Credit Ref.	Credit Title	Credit Name	Available	Targeted	Potential	Mandatory	Responsibilities	RIBA Stage	Comments / Actions
TRANSPORT									
Tra 01	Transport Assessment and Travel Plan	Travel plan	2	2		AI < 25	Transport Consultant	2-4	Travel Plan and Transport Assessment to be carried out at early design stages clearly considering the impact onto the surrounding infrastructure and to calculate the public transport Accessibility Index (AI) for the assessed building. Preliminary calculations confirmed AI of 2.59
Tra 02	Sustainable Transport Measures	1. The existing AI calculated in Tra 01	10	4		No	Transport Consultant	2-4	Credits are awarded based on identify the sustainable transport measures as per BREEAM manual Table 7.4 and on the AI of the site. Credit can be awarded when a minimum AI is 8.
		No				Transport Consultant	2-4	Achieved through negotiation with local bus, train companies to increase the frequency of the local service or dedicated bus service, diverted bus route or new bus stop etc.	
		No				Transport Consultant/Client	2-4	This may include signposting to public transport, cycling, walking infrastructure or local amenities.	
		Yes				Transport Consultant/Client	2-4	Electric recharging stations of a minimum of 3kW for at least 10% of the total car park.	
		No				Transport Consultant/Client	2-4	Car sharing group or facility, priority spaces for car sharers for at least 5% of the total car parking capacity, locate priority parking nearest the development.	
		No				Transport Consultant/Client	1	Agree and implement one proposition chosen with the local authority.	
		Yes				Transport Consultant/Client/Architect	2-4	Industrial: provide 1 cycling space for 10 staff.	
		Yes				Transport Consultant/Client/Architect	2-4	Option 7 must be achieved in addition to at least 2 compliant cyclist facilities: showers, changing rooms, lockers or drying space.	
		Yes				Transport Consultant	2-4	Food outlet, ATM, access to an outdoor space, access to recreation/leisure facility, post office, community facility, GP surgery and child care. All depending on type of the building.	
		No				Transport Consultant	2-4	One or more of the new accessible amenity (as per point 9 above) is provided.	
		No				Transport Consultant/Client	2-4	Additional amenities as part of internal layout design to be agreed.	
TRANSPORT		TOTAL	12	6	0				
		% of total score	11.50%	5.75%	0.00%				
		% of each credit	0.96%						
WATER									
Wat 01	Water Consumption	Water Consumption Minimum Standard: 1 credit Good, Very Good, Excellent and 2 credis Outstanding	5	4	1	Yes	Architect	4	Specification of water efficient domestic water-consuming components, grey/rain water collection to reduce the water consumption. Use the BREEAM Wat 01 calculator to assess the efficiency of sanitary wear.
Wat 02	Water Monitoring	Water Monitoring Minimum Standard: Criterion 1 - water meter on mains Good, Very Good, Excellent and Outstanding	1	1		Yes	M&E Engineer	4	Specification of water meter with pulsed output and BMS connected on mains water supply to each building. Install water sub-meters for all water consuming systems over 10% of the building demand.
Wat 03	Water Leak Detection	Leak Detection System	1	1			M&E Engineer	4	Water leak detection system with audible alarm capable of detecting a major leak on the mains water supply within the building and between the building and the utilities water meter.
		Flow Control Devices	1	1			M&E Engineer	4	Flow control devices that regulate the supply of water to each WC area/facility must be provided.
Wat 04	Water Efficient Equipment	Water Efficient Equipment	0	0			M&E Engineer	4	Mitigate or reduce unregulated water usage i.e. vehicle wash, swimming pools, irrigation system etc.
WATER		TOTAL	8	7	1				
		% of total score	7.00%	6.13%	0.88%				
		% of each credit	0.88%						

Credit Ref.	Credit Title	Credit Name	Available	Targeted	Potential	Mandatory	Responsibilities	RIBA Stage	Comments / Actions
MATERIALS									
Mat 01	Environmental Impacts from Construction Products - Building Life Cycle Assessment (LCA)	Superstructure - Concept Design	6	2		Yes	LCA Specialist	2	Using BREEAM simplified Building LCA tool or an IMPACT approved tool, carry out building Life Cycle Assessment (LCA) at RIBA Stage 2 before planning submission . Integrate the LCA options appraisal within the wider design decision-making process.
		Superstructure - Technical Design				LCA Specialist	4	Using BREEAM simplified Building LCA tool or an IMPACT approved tool, carry out building LCA for superstructure design options at RIBA Stage 4.	
		Substructure and Hard Landscaping Options Appraisal during Concept Design	1	1		LCA Specialist	2	Using BREEAM simplified Building LCA tool or an IMPACT approved tool, carry out the LCA options appraisal for s substructure and hard landscaping at RIBA Stage 2.	
Mat 02	Environmental Impacts from Construction Products - Environmental Product Declarations (EPD)	Specification of Products with a Recognised Environmental Product Declaration (EPD)	1	0	1		Architect	4	To specify products with recognised EPD and use BREEAM Mat 01/02 results submission tool.
Mat 03	Responsible Sourcing of Construction Products	Pre-requisite: Legal and sustainable timber				Yes/No?	Contractor	4	100% of timber and timber-based products used n the project are 'Legal' and 'Sustainable' as per UK Government's Timber Procurement Policy (TPP).
		Enabling Sustainable Procurement	1	1			Client/Design Team	2	Sustainable Procurement Plan includes sustainability aims, objectives and strategic targets to guide procurement process must be in place before RIBA Stage 2.
		Measuring Responsible Sourcing	3	1	1		Architect/Contractor	4	To specify materials from manufacturers who can provide EMS Certification, FSC, PEFC, SFI, CARES, Eco-reinforcement, BES 6001, Supply chain.
Mat 05	Designing for Durability and Resilience	Protecting Vulnerable Parts of the Building from Damage and Protecting Exposed Parts of the Building from Material Degradation	1	1			Design Team	4	The building incorporates suitable durability and protection measures and specification to limit materials degradation between environmental factors.
Mat 06	Material Efficiency	Preparation and Brief	1	1	0	Yes	Design Team	1	Set targets and report opportunities and methods for optimise the use of materials for each of the RIBA Stage. Consideration should be given to pre-fabrication and WRAP compliance.
		Concept Design				Yes		2	
		Developed Design				No		3	
		Technical Design				No		4	
		Construction				No		5	
MATERIALS		TOTAL	14	7	2				
		% of total score	17.50%	8.75%	2.50%				
		% of each credit	1.25%						

Credit Ref.	Credit Title	Credit Name	Available	Targeted	Potential	Mandatory	Responsibilities	RIBA Stage	Comments / Actions
WASTE									
Wst 01	Construction Waste Management	Pre-demolition Audit Minimum Standard: 1 credit Outstanding	1	1			Demolition Contractor	2	Pre-demolition audit must be carried out at RIBA Stage 2 and include any existing building, structures and hard surfaces. Audit needs to be referenced in RMP below.
		Construction Resource Efficiency	3	2		Yes	Contractor	4	Prepare a compliant Resource Management Plan (RMP) covering the targets of non-hazardous waste arising from site construction and main contractor to achieve a construction waste resource efficiency benchmark of 6.5 tonnes of construction waste generated per 100m2 GIA.
		Diversion of Resources from Landfill	1	1			Contractor	4	Prepare a compliant RMP and divert at least 90% (tonnes) of demolition and 80% (tonnes) non-demolition waste from landfill.
Wst 02	Recycled Aggregates	Pre-requisite: If demolition occurs on site, to encourage the reuse of the site-won material on site complaint Pre-demolition Audit				Yes	Structural Engineer	4	As per Wst 01 above.
		Project Sustainable Aggregate Points	1	0			Structural Engineer	4	Identify all aggregate types, quantities and calculate the distance travelled by transport type. Points are awarded using BREEAM Wst 02 calculator.
Wst 03	Operational Waste	Operational Waste Minimum Standard: 1 credit Excellent and Outstanding	1	1		Yes	Architect	4	A dedicated central space for storage of recyclable waste, clearly labelled and accessible to building occupants/facilities operators. A minimum of 2m ² for each unit is required.
Wst 04	Speculative Finishes (Offices only)	Speculative Floor and Ceiling Finishes	0	0			Architect	4	To install floor and ceiling finishes selected by the known occupant or if occupant not known in show area only.
Wst 05	Adaptation to Climate Change	Resilience of structure, fabric, building services and renewables installation	1	0			Design Team	2	Conduct a climate change adaptation strategy appraisal for structural and fabric resilience by the end of RIBA Stage 2. Carry out risk assessment to identify and evaluate the impact on the building from extreme weather conditions. Provide an update at RIBA Stage 4.
Wst 06	Design for Disassembly and Adaptability	Design for Disassembly and Functional Adaptability - Recommendations	1	1	0		Design Team	2	Carry out and implement a functional adaptation appraisal at RIBA Stage 2 and developed recommendations and solutions (i.e. alternative building uses, functions, etc.)
		Disassembly and Functional Adaptability – Implementation	1	0	1		Design Team	4	Provide an update during RIBA Stage 4, how the recommendations have been implemented i.e. plant replacement, horizontal / vertical expansion, refurbishment potential etc.
WASTE		TOTAL	10	6	1				
		% of total score	7.00%	4.20%	0.70%				
		% of each credit	0.70%						

Credit Ref.	Credit Title	Credit Name	Available	Targeted	Potential	Mandatory	Responsibilities	RIBA Stage	Comments / Actions
LAND USE & ECOLOGY									
LE 01	Site Selection	Previously Occupied Land	1	1			Architect	4	At lest 75% of new development footprint is built on the previously occupied land.
		Contaminated Land	1	0			Specialist	4	Specialist’s land contamination report and summary details of the implementation plan of the remediation strategy to be developed.
Ecology Route Selection						Route 2	Client/Design Team	1	Route 1: Project team member Route 2: Suitably Qualified Ecologist (SQE)
LE 02	Ecological Risks and Opportunities	Pre-requisite: Statutory Obligations				No	Client/Contractor	4	The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.
		Survey and Evaluation		0	0		Desing Team	1	Route 1: Project team member to evaluate site and risk via BREEAM Checklist
		Survey and Evaluation		1	1		Ecologist	1	Route 2: SQE appointed to carry out survey and evaluation of the site.
		Determining Ecological Outcomes		1	1		Design Team - Route 1 Ecologist - Route 2	2	The first credit achieved. Route 1 and 2 determining ecological outcomes, recommendations and data collection from survey. Evaluation is shared with design team to influence decision-making process.
LE 03	Managing Impacts on Ecology	Prerequisite: Ecological Risks and Opportunities				No	Client/Contractor	2	LE 02 has been achieved. The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.
		Planning and Measures On-Site		1	1		Design Team - Route 1 Ecologist - Route 2	2	Route 1 and 2: Roles and responsibilities to be assigned. Plan and implement site preparation and construction work early; collaborate and implement solutions and measures with stakeholders.
		Managing Negative Impacts		2	2		Design Team - Route 1 Ecologist - Route 2	4	Route 1: Negative impacts from site preparation and construction works have been managed according to the hierarchy and no net impact has resulted (1 credit) Route 2: SQE to provide recommendation on avoidance of negative impact of the site preparation and construction works according to the hierarchy and no net impact has resulted (1 or 2 credits).
LE 04	Ecological Change and Enhancement	Prerequisite: Managing Negative Impacts on Ecology				No	Client/Contractor	2	LE 03 has been achieved. Roles and responsibilities to be assigned. Site preparation and construction works have been planned. The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.
		Change and Enhancement of Ecology		0	0		Design Team	4	Route 1: Ecological measure that enhance the site ecological value (1 credit)
		Ecological Enhancement		1	1		Ecologist/Design Team	4	Route 2: Project team liaise with stakeholders and implement solutions on site or off site within the zone of influence. (N/A for Route 1)
		Change and Enhancement of Ecology		3	2		Ecologist	4	Route 2: SQE to provide calculations of the change in ecological value (up to 3 credits)
LE 05	Long Term Ecology Management and Maintenance	Prerequisite: Statutory Obligations, Planning and Site Implementation				No	Client/Contractor	2	LE 03 and LE 04 have been achieved. The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.
		Management and Maintenance throughout the Project		1	1		Design Team - Route 1 Ecologist - Route 2	4	Route 1 and 2: The optimal ecological outcomes agreed in LE02 are are met in-practice and enhancement measures in LE03 & LE04 are implemented and monitored. A section on Ecology and Biodiversity has been included as part of the tenant or building owner information supplied.
		Landscape and Ecology Management Plan		1	1		Landscape Architect/Ecologist	4	Route 2: Landscape and ecology management plan, or similar, is developed in accordance with BS 42020:2013 covering as a minimum the first five years after project completion.
LAND USE & ECOLOGY		TOTAL	13	11	0				
		% of total score	15.00%	12.69%	0.00%				
		% of each credit	1.15%						

Credit Ref.	Credit Title	Credit Name	Available	Targeted	Potential	Mandatory	Responsibilities	RIBA Stage	Comments / Actions
POLLUTION									
Pol 01	Impact of Refrigerants	Pre-Requisite: Systems with Electric Compressors				Yes	M&E Engineer	4	All systems with electric compressors comply with the requirements of BS EN 378:2016 (parts 2 and 3). Refrigeration systems containing ammonia comply with the Institute of Refrigeration Ammonia Refrigeration Systems code of practice.
		Impact of Refrigerants	2	1			M&E Engineer	4	1 credit where Refrigerant's Direct Effect Life Cycle CO ₂ equivalent emissions (DEL _C CO ₂ e) of ≤ 1000 kgCO ₂ e/kW cooling/heating capacity; 2 credits where DEL _C is ≤ 100 kgCO ₂ e/kW
		Leak Detection	1	0			M&E Engineer	4	All systems are hermetically sealed or only use environmentally benign refrigerants or a permanent automated refrigerant leak detection system is required.
Pol 02	Local Air Quality	Is the project required to connect to a District Heating system, and it supplies all heating and hot water demands to the building?				No	M&E Engineer	4	When it is required to connect to DH the Local Air Quality credit is N/A.
		Local Air Quality	2	1			M&E Engineer	4	Emissions from all installed combustion plant that provide space heating and domestic hot water do not exceed the gas boilers NO _x = 24mg/kWh (2 credits) or 27mg/kWh (1 credit)
Pol 03	Flood and Surface Water Management	Flood Resilience	2	2			Flood Risk Consultant	4	Site specific Flood Risk Assessment prepared by specialist to confirm that if the site is a low, medium or high probability of flooding from all sources of flooding.
		Surface Water Run Off	2	2			Flood Risk Consultant	4	Surface water run-off design solutions must be bespoke. Specialist to provide calculation and confirm the proposed attenuation measures, i.e. SUDs. Calculation for rate and volume of surface watr run-off.
		Minimising Watercourse Pollution	1	0			Flood Risk Consultant	4	Specialist to confirm there is no discharge from the developed site for rainfall up to 5 mm and the pollution prevention systems are in line with the SUDs requirements.
Pol 04	Reduction of Night Time Light Pollution	Reduction of Night Time Light Pollution	1	1			M&E Engineer	4	External lighting design is in line with ILP guidance of obtrusive light and can be automatically switched off. Illuminated advertisements are designed in compliance with ILP PLG05 The Brightness of Illuminated Advertisements.
Pol 05	Reduction of Noise Pollution	Reduction of Noise Pollution	1	1			Acoustician	4	A BS 4142:2014 compliant noise impact assessment to be carried out by Acoustician.
POLLUTION		TOTAL	12	8	0				
		% of total score	9.00%	6.00%	0.00%				
		% of each credit	0.75%						

Credit Ref.	Credit Title	Credit Name	Available	Targeted	Potential	Mandatory	Responsibilities	RIBA Stage	Comments / Actions
EXEMPLARY									
Man 03	Responsible Construction Practices	Responsible Construction Practices	1	0	1		Contractor	4	Principal contractor achieves score register the site under the Considerate Contractors Scheme (CCS) or Fleet Operator Recognition Scheme (FORS) and achieves score required for targeted credits.
Hea 01	Visual Comfort	Daylighting	1	0			Daylighting Specialist	4	When relevant building areas exceed good practice daylight factor OR the relevant building areas exceed good practice average and minimum point daylight illuminance criteria.
		Internal and External Lighting Levels, Zoning and Controls	1	0			M&E Engineer	4	Lighting in each zone can be manually dimmed down to 20%.
Hea 02	Indoor Air Quality	Emissions by Construction Products	0	0			Architect	4	All decorative paints and varnishes specified must meet performance standard EU Directive 2004/42/CE and testing standard BS EN ISO 1189-2:2013, Pat2. In addition, all 7 remaining product categories meet testing requirements and emissions levels criteria for Volatile Organic Compound (VOC) Emissions.
Hea 06	Security	Security of Site and Building	1	0			Security Specialist	4	The performance against the scheme has been confirmed by independent assessment and verification.
Ene 01	Reduction of Emissions	Beyond Zero Net Rgulated Carbon and Carbon Negative	5	0			Energy Consultant	4	Carbon neutral or carbon negative building is achieved. A calculation of the energy score using the BREEAM Refurbishment and Fit-out energy model must be carried out. This must be assessed against a baseline BRUKL.
		Post Occupancy Stage	2	0			Energy Consultant	4	Achieve maximum available credits in Ene 02 and a client or building occupier commits funds to pay for the post occupancy stage. Assessor to be appointed and to report on the actual energy consumption for first 12 months. Remediation action might be required.
Wat 01	Water Consumption	Water Consumption	1	0			Architect/M&E Engineer	4	Specification of water efficient domestic water-consuming components to reduce the water consumption 65% beyond the baseline. Use the BREEAM Wat 01 calculator to assess the efficiency of sanitary wear including rainwater and greywater harvesting.
Mat 01	Life Cycle Impacts	Core Building Services Options Appraisal	1	0			LCA Specialist	4	Carry out LCA options of at least 3 signigicaty different core building services.
		LCA and LCC Alignment	1	1			LCA Specialist	4	Align LCA and LCC options appraisal activity. Both credits LCA and LCC must be achieved.
		Third Party Verification	1	1			LCA Specialist	4	A suitably qualified third party work or verifies the building LCA work and produces a report.
Mat 03	Responsible Sourcing of Materials	Responsible Sourcing of Construction Products	1	0			Architect/Contractor	4	Achieve 50% of the points available in the Mat 03 calculation through sourcing of main building materials from responsible suppliers.
Wst 01	Construction Waste Management	Construction Resource Efficiency and Diversion of Resources from Landfill	1	0			Contractor	4	To achieve a construction waste resource efficiency benchmark of 1.6m3 (or 1.9 tonnes) of construction waste generated per 100m2 GIA and divert at least 85% by volume or 90% tonnage of non-demolition waste from landfill and 85%y volume or 95% in tonnage of demolition waste from landfill.
Wst 02	Recycled Aggregates	Project Sustainable Aggregate Points	1	0			Structural Engineer	4	Identify all aggregate types, quantities and calculate the distance travelled by transport type. Points are awarded using BREEAM Wst 02 calculator.
Wst 05	Adaptation to Climate Change	Responding to Climate Change	1	0			Design Team	4	Achieved when credits Hea 04 Thermal comfort, 8 credits in Ene 01, Ene 04 Passive analysis, 3 credits in Wat 01, Mat 05 Material degradatin and Pol 03 Flood risk and 2 credits for Surface water run-off credits are achieved.
LE 02	Ecological Risks and Opportunities	Wider Site Sustainability	1	0			Ecologist	4	Wider sustainability related activities and potential ecosystem service bnefits are considered as part of determining the optimal ecological outcomes for the site.
EXEMPLARY		TOTAL	10	2	1				
		% of total score	10.00%	2.00%	1.00%				
		% of each credit	1.00%						