CHARLTON RIVERSIDE
PHASE ONE

BREEAM PRE-ASSESSMENT ADDENDUM

Rockwell

Intended for

Leopard Guernsey Anchor Propco Limited

Document type

Pre-Assessment Report

Date

December 2017

CHARLTON RIVERSIDE

BREEAM PRE-ASSESSMENT

RAMBOLL

CHARLTON RIVERSIDE
BREEAM PRE-ASSESSMENT

Revision	**02**
Date	**December 2017**
Made by	**Andreas Alygizos**
Checked by	**Izabela Pritchett**
Approved by	**Izabela Pritchett**

Ramboll
240 Blackfriars Road
London
SE1 8NW
United Kingdom
T +44 (0)20 7631 5291
www.ramboll.co.uk

CONTENTS

APPENDICES

1. EXECUTIVE SUMMARY

Ramboll has been commissioned by the Leopard Guernsey Anchor Propco Limited to carry out the BREEAM pre-assessment for the proposed Charlton Riverside development (hereafter referred to as 'the proposed development'), in New Charlton, Greenwich.

The 2.52 ha site is located within the Charlton area and is currently predominately occupied by industrial warehouses and business park units.

The proposed development will include the demolition of existing buildings and erection of 11 buildings ranging from 2 to 10 storeys in height for Class C3 residential use, with flexible uses comprising Class B1 (Business), Class A1-A3 (Retail/ Restaurant), Class D1 (Community) and Class D2 (Leisure) at ground floor and first floor level, alterations to existing vehicular access and creation of new pedestrian access from Hope and Anchor Lane and the riverside, creation of new areas of open space and landscaping together with the provision of associated car parking, cycle space, refuse and recycling storage, plant and all other associated works.

A pre-assessment meeting was held with the design team on the week of the 8th of August 2016 to assess the building against the BREEAM New Construction 2014 (BREEAM NC 2014[1]) requirements Shell and Core route. Considering that the revised scheme will follow similar approach and principles with the previous scheme, a second pre-assessment meeting was not carried out in this stage. It is expected that the design team will take the appropriate actions to cover the particular BREEAM requirements.

Two pre-assessments were undertaken for the commercial units to account for a wider range of commercial uses. A BREEAM offices pre-assessment was carried out to cover the commercial units that will potentially be used as office space or créche. A separate BREEAM Healthcare pre-assessment was undertaken to determine the targeted score for any space that may potentially be used as a flexible D1/D2 space or healthcare facility.

This report details the results obtained from the pre-assessment meeting and summarises the targeted scores for each pre-assessment. A section covering the credits that require early consideration has been included to ensure that the appropriate requirements are actioned during the early stages of the design process.

The BREEAM target for the commercial units at the proposed development is to achieve a rating of 'Excellent' in accordance with the planning requirements set out in the Royal Greenwich Local Plan[2]. This requires an assessment score of at least 70% as well as achieving the minimum standards for the rating.

The initial pre-assessment review indicates a score of **76.60**% is achievable for the units assessed under BREEAM New Construction 2014 as offices. This score translates into a BREEAM rating of 'Excellent' and allows for a safety margin of 6.60%.

An 'Excellent' rating is also being targeted for the flexible D1/D2 space assessed as a healthcare building type. The pre-assessment score for this unit is **75.70**%. The safety margin is 5.70%

The pre-assessment includes a number of credits, which are currently considered possible; however these carry some risk, which will require the design development to ensure that the credits can be achieved when a formal assessment is undertaken.

Full details of the credits currently being targeted to achieve an 'Excellent' rating are included in **Appendix A**.

[1] BRE, 2014, BREEAM UK New Construction, Non-domestic Buildings Technical Manual, SD 5076:5.0-2014

[2] Royal Borough of Greenwich, 2014. Royal Greenwich Local Plan: Core Strategy with Detailed Policies

2. BREEAM NEW CONSTRUCTION 2014

BREEAM is the Building Research Establishment's Environmental assessment method. The scheme aims to:

- Mitigate the life cycle impacts of buildings on the environment;
- Enable buildings to be recognized according to their environmental benefits;
- Provide a credible environmental label for buildings; and
- Stimulate the demand for sustainable buildings.

It is now a widely used and recognised standard to describe a building's environmental performance.

A BREEAM assessment is split into two parts, a design stage (DS) and a post-construction stage (PCS) assessment. The DS assessment results in an interim BREEAM certificate that confirms the building's performance at the design stage of the lifecycle. As indicated by its name, this stage of the assessment occurs during the design development of a scheme and therefore, does not represent a building's final performance against the BREEAM criteria, as this may change as construction is undertaken. The final BREEAM certificate is issued once the Post-Construction stage assessment has been validated by the BRE. It serves to confirm that the building's 'as-built' performance and rating are in accordance with that certified at the Design stage.

For a specific BREEAM rating to be achieved, the minimum percentage score needs to be achieved, and the minimum standards applicable to that rating complied with. The minimum standards applicable to each rating serve to ensure that performance against fundamental environmental issues is not over-looked in pursuit of a particular rating. Several minimum standards need to be met to achieve a 'Very Good' rating. These are identified in the report. Formal certification cannot be achieved until this assessment is completed and submitted to BRE for approval.

BREEAM Thresholds

BREEAM ratings range between 'Pass' and 'Outstanding'. The rating achieved is dependent on the percentage score achieved and achieving the required minimum standards appropriate to each rating level. The ratings thresholds are as follows:

- Unclassified <30%;
- Pass ≥30%;
- Good ≥45%;
- Very Good ≥55%;
- Excellent ≥70%; and
- Outstanding ≥85%

3. TRACKER PLUS

The assessment has been set up on Tracker plus, which is an online based BREEAM project management system, used to streamline the delivery of the assessment.

The design team members can access Tracker plus to check the most up to date score, credits targeted, credit and evidence requirements as well as upload evidence for credits. The BREEAM assessor will provide login details for accessing the BREEAM assessment on Tracker plus for team members who are responsible for providing evidence for the assessment.

4. PRE-ASSESSMENT SUMMARY

The purpose of the pre-assessment is to establish a baseline of issues/credits, which need to be targeted based on a number of assumptions and the project details in the early stages. The pre-assessment gives a broad overview of the process and provides a strategy to achieve a desired rating.

The results from the pre-assessments carried out under BREEAM New Construction 2014 (Issue 5.0) are detailed in the sections below for the office and healthcare areas.

4.1 BREEAM Pre-Assessment for Office areas

A breakdown of credits targeted against credits available, for the office units, is provided in Table 1, which also shows the weighted percentage value for each section.

Table 1. Pre-assessment BREEAM Result for Office Units

BREEAM Section	Credits Available	Credits Targeted	% of Credits Achieved	Section Weighting	Section Score
Management	18	17	94.44%	11%	10.38%
Health & Wellbeing	10	6	60.00%	10.5%	6.30%
Energy	18	9	50.00%	15%	7.50%
Transport	9	9	100.00%	10%	10.00%
Water	9	7	77.78%	7.5%	5.83%
Materials	13	12	92.31%	14.50%	13.38%
Waste	10	6	66.67%	9.50%	6.33%
Land Use & Ecology	10	10	100.00%	11%	11.00%
Pollution	13	7	53.85%	11%	5.92%
Total Score				76.60%	
Innovation Credits Achieved				0.00%	
FINAL BREEAM Score				**76.60%**	
BREEAM Rating				**Excellent**	

Table 2 summarises the minimum standards that need to be achieved in order to qualify for an 'Excellent' rating. All minimum standards for an 'Excellent' rating have been targeted for the proposed development.

Table 2 Compliance with BREEAM Minimum Standards for an Excellent Rating

Minimum Standards*for BREEAM 'Excellent'		
Credit	**Minimum standards**	**Targeted?**
Man 03: Responsible construction practices	One credit (Considerate construction)	✓
Man 04: Commissioning and handover	Criterion 10 (Building User Guide)	✓
Ene 01: Reduction of energy use and carbon emissions	Five credits	✓
Ene 02: Energy monitoring	One credit (First sub-metering credit)	✓
Wat 01: Water consumption	One credit	✓

Table 2 Compliance with BREEAM Minimum Standards for an Excellent Rating

Minimum Standards*for BREEAM 'Excellent'		
Credit	**Minimum standards**	**Targeted?**
Wat 02: Water monitoring	Criterion 1 only	✓
Mat 03: Responsible sourcing of materials	Criterion 1 only	✓
Wst 03: Operational waste	One credit	✓
LE 03: Minimising impact on existing site ecology	One credit	✓
Note: if the minimum standards are not met then the targeted rating will not be achieved regardless of the overall score		

Figure 1 sets out how the office areas of the proposed development have performed under each of the different BREEAM sections.

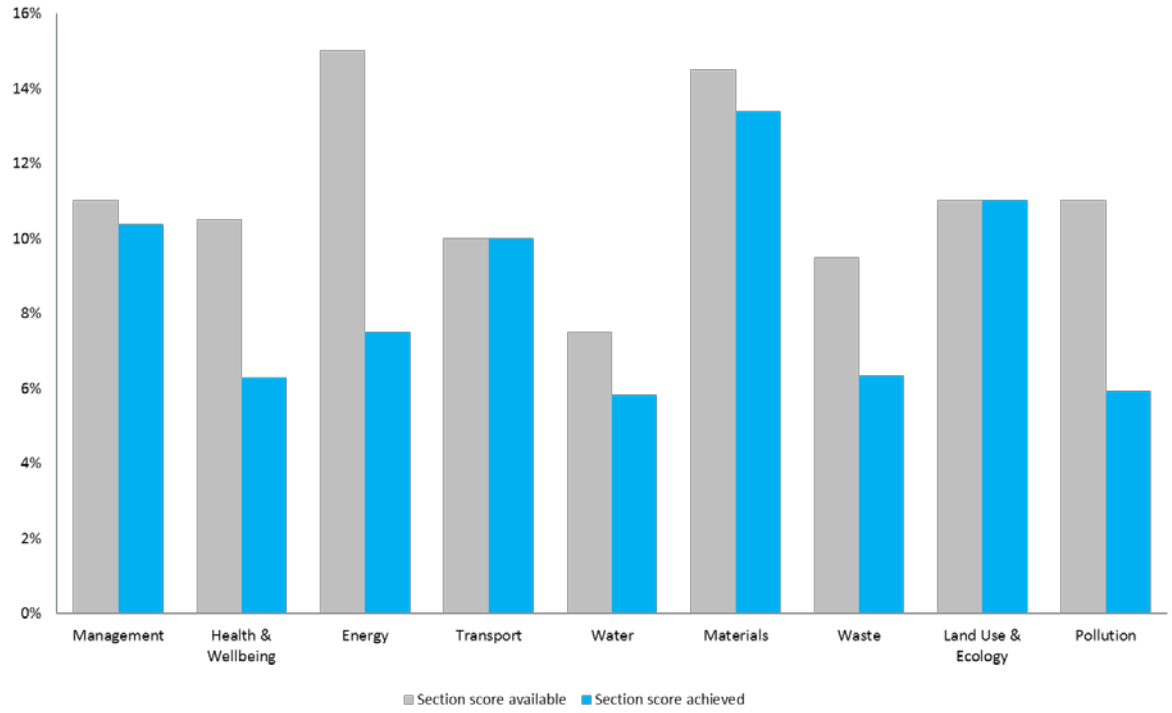

Figure 1: Comparison of Targeted Credits Against Available Credits Per Section for Office Areas

The threshold score for an 'Excellent' rating is 70.00%. Currently the targeted score for the office areas, based on the pre-assessment is 76.60%, which translates into an 'Excellent' rating.

4.2 BREEAM Pre-assessment for Healthcare Unit

A breakdown of credits targeted against credits available, for the healthcare unit, is provided in Table 3, which also shows the weighted percentage value for each section.

Table 3. Pre-assessment BREEAM Result for Healthcare Unit

BREEAM Section	Credits Available	Credits Targeted	% of Credits Achieved	Section Weighting	Section Score
Management	18	17	94.44%	11%	10.38%
Health & Wellbeing	11	6	54.55%	10.5%	5.72%
Energy	18	9	50.00%	15%	7.50%
Transport	10	10	100.00%	10%	10.00%
Water	9	7	77.78%	7.5%	5.83%
Materials	14	13	92.86%	14.50%	13.46%
Waste	8	5	62.50%	9.50%	5.93%
Land Use & Ecology	10	10	100.00%	11%	11.00%
Pollution	13	7	53.85%	11%	5.92%
Total Score				75.70%	
Innovation Credits Achieved				0.00%	
FINAL BREEAM Score				**75.70%**	
BREEAM Rating				**Excellent**	

All the minimum standards for an 'Excellent' rating outlined in Table 2, in section 4.1 have been targeted for the Healthcare unit. The current targeted score for the Healthcare unit is 75.70% which is above the threshold for an 'Excellent' rating.

Figure 2 shows how the healthcare unit in the proposed development has performed under each of the different BREEAM sections.

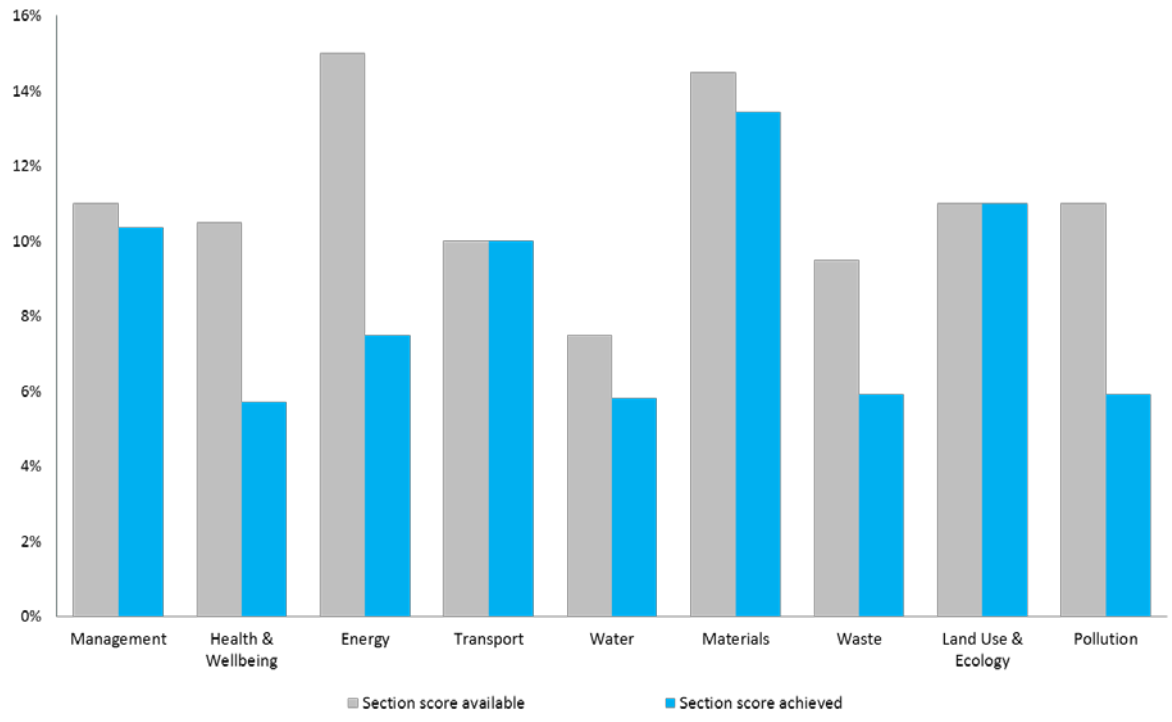

Figure 2: Comparison of Targeted Credits Against Available Credits Per Section for The Healthcare Areas

5. TARGETED CREDITS THAT REQUIRE EARLY CONSIDERATION

Certain credits need to be addressed and considered by the design team during the early stages of the design process. In some cases, a specific timeline for when the credit needs to be addressed is stipulated and forms part of the BREEAM requirements. These credits are listed below to ensure that the actions required to achieve these credits are taken at the appropriate time. The set of credits relates to targeted credits to achieve the **76.60%** score for the offices units and the **75.70%** score for the healthcare unit.

The below are summary of actions which need to be undertaken at the early stages. Full set of requirements for each of the credits mentioned below can be found in the BREEAM manual.

- **Man 01 Project brief and design**

One credit – Stakeholder consultation (project delivery)

Prior to completion of the Concept Design (**RIBA Stage 2**), the project delivery stakeholders have met to identify and define their roles, responsibilities and contributions for each of the key phases of project delivery.

One credit - Stakeholder consultation (Third party)

Prior to completion of **RIBA Stage 2** - all relevant third-party stakeholders have been consulted by the design team. Prior to completion of RIBA Stage 4 - consultation feedback is given to all relevant parties.

One credit - Sustainability Champion (design)

A Sustainability Champion is appointed during the feasibility stage (**RIBA Stage 1**).
The defined BREEAM performance target(s) has been formally agreed between the client and design/project team no later than the Concept Design stage (**RIBA Stage 2**).

One credit – Sustainability Champion (monitoring progress)

A Sustainability Champion is appointed BREEAM AP appointment no later than **RIBA Stage 1.**

- **Man 02 Life cycle cost and service life planning**

Two credits – Elemental life cycle cost (LCC)

An elemental life cycle cost (LCC) plan has been carried out at Concept design (**RIBA stage 2**). The LCC plan needs to be in line with the 'Standardised method of life cycle costing for construction procurement' PD 156865:2008. Moreover the elemental LCC plan must:

- Provide an indication of the future replacement costs over a period of analysis as required by the client (e.g. 20,30,50,60 years); and
- Incudes service life, maintenance and operation cost estimates.

- **Man 04 Commissioning and handover:**

Two credits - Commissioning and testing schedule and responsibilities (1st credit), Commissioning building services (2nd credit)

An appropriate project team member should be appointed to monitor and programme the commissioning and testing activities on behalf of the client prior to completion of design stage (**RIBA stage 4**).

- **Hea 06 Security of site and building**

A Suitably Qualified Security Specialist (SQSS) is required to conduct an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (**RIBA Stage 2** or equivalent).

AND

The SQSS is to develops a set of recommendations or solutions during or prior to **RIBA Stage 2**. These recommendations are to ensure that the design of buildings, car parks and public or amenity space are planned, designed and specified to address the issues identified in the preceding SNA.

- **Ene 04 Low carbon design**

One credit - Low zero carbon feasibility study

A feasibility study is carried out by the completion of the Concept Design stage (**RIBA Stage 2**) by an energy specialist to establish the most appropriate recognised local low or zero carbon LZC energy source(s) for the proposed development.

- **Tra 05 Travel Plan**

A travel plan has been developed as part of the feasibility and design stages. A site-specific travel assessment/statement has been undertaken to ensure the travel plan is structured to meet the needs of the site.

- **Mat 06 Material efficiency**

Opportunities have been identified, and appropriate measures investigated and implemented, to optimise the use of materials in building design, procurement, construction, maintenance and end of life. The above is carried out by the design/construction team in consultation with the relevant parties during Preparation and Brief, Concept Design, Developed Design, Technical Design and Construction.

- **Wst 06 Functional Adaptability**

A building-specific functional adaptation strategy study has been undertaken by the client and design team by Concept Design (**RIBA Stage 2** or equivalent), which includes recommendations for measures to be incorporated to facilitate future adaptation.

The Functional adaptation measures should be adopted in the design by Technical Design stage (**RIBA Stage 4** or equivalent) in accordance with the functional adaptation strategy recommendations, where practical and cost effective. Any omissions should be justified in writing to the assessor.

- **LE 04 Enhancing site ecology**

One credit - Ecologist's report and recommendations

A suitably qualified ecologist (SQE) is appointed by the client by the end of the Preparation and Brief stage (**RIBA Stage 1**) to advise on enhancing the ecology of the site at an early stage.
The SQE has provided an Ecology Report[3] with appropriate recommendations for the enhancement of the site's ecology at Concept Design stage (**RIBA Stage 2**).

- **LE05 Long term impact on biodiversity**

Appoint an SQE by the end of **RIBA Stage 1** to advise on enhancing the ecology of the site at an early stage.

The above SQE is appointed during the **RIBA Stage 1** to help identify species of local biodiversity importance on-site and ensure that the proposals support local priorities.

[3] Aspect Ecology, Charlton Riverside- Ecological Appraisal, December 2017

6. CONCLUSION

Following the initial review of the scheme against the BREEAM New Construction 2014 criteria, a credible strategy has been proposed to deliver a BREEAM ‘Excellent’ for the office and healthcare areas of the proposed development.

The design team is to develop and adapt the design to ensure the credits can be achieved as per the targets set. The BREEAM assessor has been and will continue to form an integral part of the design team and a consistent point for reference, review and questions. Following this principle is proven through experience to offer the surest route to a successful BREEAM certification and holistic sustainable design.

APPENDIX A
BREEAM NEW CONSTRUCTION 2014 – OFFICES PRE-ASSESSMENT

		Available	Targeted	Comments
Man 01	Project brief and design	4	4	**Stakeholder consultation - 2 / 2 credits targeted** Prior to completion of the Concept Design stage, all project delivery stakeholders and relevant third-party stakeholders have been consulted by the design team and this covers the minimum consultation content as per BREEAM requirements. Confirm how this changed the project brief / initial design Stakeholders 3rd party: See CN3 note which confirms: external local residents but also future building users, management/maintenance considerations, local community (including transport), and statutory consultation requirements. **Sustainability champion (design) - 1 / 1 credit targeted** Additional appointment of BREEAM AP at RIBA Stage 1. **Sustainability champion (monitoring progress) - 1 / 1 credit targeted** BREEAM AP to attend key project/design team meetings during the Concept Design, Developed Design and Technical Design stages.
Man 02	Life cycle cost and service life planning	4	4	**Elemental LCC – 2 / 2 credits targeted** Additional appointment to carry out an outline, entire asset elemental life cycle cost (LCC) plan life cycle cost analysis at **RIBA stage 2** **Component LCC – 1 / 1 credit targeted** Requires a component level (envelope, services, finishes, etc) LCC analysis to be carried out at RIBA Stage 4. **Capital cost reporting – 1 / 1 credit targeted** This requires reporting the capital cost for the building in pounds per square metre (£k/m2).
Man 03	Responsible construction practices	6	6	**MINIMUM STANDARD for Excellent** - 1 credit under the Considerate Constructors Scheme Pre-requisite - All timber and timber based products used on the project is 'Legally harvested and traded timber' - targeted **Environmental management - 1 / 1 credit targeted** Requires the contractor to operate an environmental management system. To be included in the Contractors Responsibility Report. **Sustainability champion (construction) - 1 / 1 credit targeted** To be included in the Contractors Responsibility Report.

		Available	Targeted	Comments
				Considerate construction - 2 / 2 credit targeted Contractor achieves Considerate Constructors Scheme scores 35 - 39 with at least 7 in each category. **Monitoring of construction site impacts - 2 / 2 credits targeted** To be included in the Contractors Responsibility Report.
Man 04	Commissioning and handover	4	3	**MINIMUM REQUIREMENT for Excellent** - Building User Guide (BUG) **Commissioning and testing schedule and responsibilities – 1 / 1 credit targeted** **Commissioning building services – 1 / 1 credit targeted** To be included in the Contractors Responsibility Report. **Testing and inspecting building fabric – 0 / 1 not targeted.** Remedial works, if required may be costly. **Handover – 1 / 1 credit targeted.** For Shell & Core only criterion 10 is applicable - Building User Guide.
Management Totals:		**18**	**17**	
Management score totals:		**11**	**10.39**	
Hea 01	Visual Comfort	3	1	**Daylighting – 0 / 1 not targeted** Daylighting study shall be carried out to confirm whether this credit is achievable. Considering that some plans are deep, this will not be easy to achieve. Added as a potential credit. **View out – 0 / 1 not targeted** This may not be achievable due to the deep plans. Added as a potential credit. **Internal and external lighting – 1 / 1 credit targeted** Criteria 7 to 9, 11 to 13 - These criteria are not applicable. Only external lighting criteria apply. All external lighting to be in accordance with BS 5489-1:2013 Lighting of roads and public amenity areas and BS EN 12464-2:2014 Light and lighting - Lighting of work places - Part 2: Outdoor work places.

		Available	Targeted	Comments
Hea 02	Indoor Air Quality	2	0	**Ventilation – 0 / 1 not targeted** No credits targeted due to the uncertainty regarding the layout of intakes and exhausts and especially the requirement to have intakes 20m away from sources of external pollution. **Potential for natural ventilation – 0 / 1 not targeted.** Not targeted due to uncertainty for the ventilation strategy. Will be confirmed in later stages.
Hea 04	Thermal comfort	2	2	**Thermal modelling – 1 / 1 credit targeted.** Requires thermal modelling to be carried out in accordance with CIBSE AM 11. Additional appointment may be needed. **Adaptability for projected climate change – 1 / 1 targeted.** Requires thermal modelling to be undertaken at Detailed Design stage and include climate change scenarios.
Hea 05	Acoustic Performance	1	1	**Indoor ambient noise level - 1 / 1 credit targeted** A suitably qualified acoustician will need to be appointed. Sound insulation and reverberation criteria: These criteria are not applicable.
Hea 06	Safety and Security	2	2	**Safe access – 1 / 1 credit targeted.** Compliance with safe access requirements needs to be achieved. **Security of site – 1 / 1 credit targeted.** The design team will need to seek recommendations from an Architectural Liaison Officer (or Suitably Qualified Security Specialist) during **RIBA stage 2** and implement recommendations into the building design.
Health & Wellbeing Totals:		**10**	**6**	
Health & Wellbeing score totals:		**10.50**	**6.3**	
Ene 01	Reduction of energy use and carbon emissions	12	5	**MINIMUM REQUIREMENT for Excellent rating** - 5 credits Given that there is a GLA requirement for a 35% reduction below Part L 2013 it is expected that the proposed development will achieve at least 6 credits. It's likely that a higher number of credits will be achieved but this will only be confirmed once an energy model is prepared for the proposed development.

		Available	Targeted	Comments
Ene 02	Energy Monitoring	2	2	**MINIMUM REQUIREMENT for Excellent rating** – First sub-metering credit **Sub metering of major energy consuming systems – 1 / 1 credit targeted** Energy sub-metering is installed that enables at least 90% of the estimated annual energy consumption to be assigned to the various end-use categories. **Sub metering of high energy load areas – 1 / 1 credit targeted** Shell and core: All criteria relevant to the building type and function apply, subject to the following: meters must be installed on the energy supply to each separate tenanted unit or floor plate within the assessed proposed development.
Ene 03	External Lighting	1	1	**1 / 1 credit targeted** Average initial luminous efficacy of the external light fittings within the construction zone is not less than 60 luminaire lumens per circuit Watt and there are daylight sensors.
Ene 04	Low carbon design	3	1	**Passive design analysis – 0 / 1 not targeted.** Meaningful reduction in the total energy demand as a result of the passive design analysis **Free cooling – 0 / 1 not targeted.** Where building does not use cooling **Low zero carbon feasibility study – 1 / 1 credit targeted.** Requires a LZC feasibility study to be carried out during **RIBA stage 2**.
Energy Totals:		**18**	**9**	
Energy score totals:		**15.00**	**7.50**	
Tra 01	Public Transport Accessibility	3	3	**3 / 3 credits targeted.** The PTAL for the site indicates that 3 credits can be achieved.
Tra 02	Proximity to amenities	1	1	**1 / 1 credit targeted.** Based on having: • food outlet • access to cash • child care facility • access to an outdoor open space Within 500m of the building entrance.
Tra 03	Cyclist facilities	2	2	**2 / 2 credits targeted** Cycle spaces provided 1 per 10 staff. A 50% reduction on the number of cycle spaces is allowed based on achieving all Tra 01 credits. Compliant cyclist facilities (showers, changing areas etc.)
Tra 04	Maximum car parking capacity	2	2	**2 / 2 credits targeted.** The number of car parking spaces to meet the BREEAM criteria

		Available	Targeted	Comments
Tra 05	Travel Plan	1	1	**1/1 credit targeted** Requires a Travel plan to be developed as part of the feasibility and design stages.
Transport Totals:		**9**	**9**	
Transport score totals:		**10**	**10**	
Wat 01	Water Consumption	5	3	**MINIMUM REQUIREMENT for Excellent rating** - 1 credit 3/5 credits have been targeted as a conservative approach. The efficiency of the following 'domestic scale' water-consuming components must be included in the assessment (where specified): 1. WCs 2. Urinals 3. Taps (wash hand basins and where specified kitchen taps and waste disposal unit) 4. Showers 5. Baths 6. Dishwashers (domestic and commercial sized) 7. Washing machines (domestic and commercial or industrial sized). Compliance for this issue must be assessed on the basis of all water-consuming components and greywater and/or rainwater systems specified and installed by the developer. Components or systems listed in the criteria and sited within tenant areas that are not being specified by the developer, but will be specified by the tenant, do not need to be assessed for a shell and core project.
Wat 02	Water Monitoring	1	1	**MINIMUM REQUIREMENT for Excellent rating** - water meter on the mains water supply to each building **1/1 credit targeted**
Wat 03	Leak Detection	2	2	**Leak detection system – 1/1 credit targeted** Leak detection system installed. **Flow control devices – 1/1 credit targeted** Flow control devices per WC area installed.
Wat 04	Water Efficient Equipment	1	1	**1/1 credit targeted** All planting specified is restricted to contextually appropriate species that thrive without irrigation and will continue to do so in those conditions likely as a result of climate change, i.e. typically warmer and drier conditions. Or specify other solutions for reducing unregulated water consumption.
Water Totals:		**9**	**7**	
Water score totals:		**7.50**	**5.83**	

		Available	Targeted	Comments
Mat 01	Life Cycle Impacts	5	5	**5 / 5 credits targeted** Requires that the majority of the materials specified for the building achieve a Green Guide rating of A+ or A. It is recommended that the ratings are checked for all elements in early stages to confirm the number of credits that can be achieved.
Mat 02	Hard Landscaping and Boundary Protection	1	1	**1 / 1 credit targeted** Feedback from the landscape architect given in the previous pre-assessment study indicates that this credit can be targeted. Where at least 80% of all external hard landscaping and 80% of all boundary protection (by area) in the construction zone achieves an A or A+ rating, as defined in the Green Guide to Specification.
Mat 03	Responsible Sourcing of Materials	4	3	**MINIMUM REQUIREMENT for Excellent rating** - all timber is responsibly sourced **Sustainable procurement plan - 1 / 1 credit targeted** Main contractor has a sustainable procurement plan for sourcing materials **Responsible sourcing of materials - 2 / 3 credit targeted** Score well on sourcing of materials, such as getting materials from ISO14001 rated, are reused, FSC timber, BES 6001 etc. To be included in the Contractors Responsibility Report.
Mat 04	Insulation	1	1	**1 / 1 credit targeted** Building insulation needs to perform well in green guide rating.
Mat 05	Designing for durability and resilience	1	1	**1 / 1 credit targeted.** The building incorporates suitable durability and protection measures or designed features/solutions to prevent damage to vulnerable parts of the internal and external building and landscaping elements.
Mat 06	Material efficiency	1	1	**1 / 1 credit targeted** Requires documenting the selection of materials for resource efficiency throughout the whole design and construction process. To be included in the Contractors Responsibility Report.
Materials Totals:		**13**	**12**	
Materials score totals:		**14.50**	**13.46**	

		Available	Targeted	Comments
Wst 01	Construction Waste Management	4	3	**Construction resource efficiency - 1 / 3 credits targeted** Pre-demolition audit required. Site Waste Management Plan required Aiming for waste generation (non-hazardous) to be < 7.5 m3 or <6.5 tonnes per 100m2 GIA **Diversion of resources from landfill - 1 / 1 credit targeted** Aiming for diversion from landfill of 70% volume or 80% tonnage of waste generated.
Wst 02	Recycled Aggregates	1	0	**0 / 1 not targeted** % of recycled aggregates used in specific areas needs to meet following minimum % as per below. Also need total aggregate use to be above 25% recycled.
Wst 03	Operational Waste	1	1	**MINIMUM REQUIREMENT for Excellent rating** - 1 credit **1 / 1 credit targeted** Require dedicated separate waste areas for operational waste, (recycling and general waste). If expecting a lot of waste, e.g. loads of paper, or compostable will need a specific compactor or bailer. (This is likely to be required for retail). Or an adequate space(s) for storing segregated food waste and compostable organic material prior to collection. Only criteria 1 and 2 apply.
Wst 04	Speculative floor and ceiling finishes	1	1	**1 / 1 credit targeted** Carpets, other floor finishes and ceiling finishes have been installed in a show area only (one floor plate or individual office or <25% of the net lettable floor area)
Wst 05	Adaptation to climate change	1	0	**0 / 1 not targeted**- criterion 2 is applicable. Structural and fabric resilience - Requires a climate change adaptation strategy appraisal in terms of fabric and structural resilience to be carried out for the building during RIBA stage 2. Needs to cover items below and any potential mitigation. Items to be covered: i. Hazard identification ii. Hazard assessment iii. Risk estimation iv. Risk evaluation v. Risk management.

		Available	Targeted	Comments
Wst 06	Functional adaptability	1	1	**1 / 1 credit targeted.** Functional adaptation strategy study needs to include: 1. The potential for major refurbishment, including replacing the façades. 2. Design aspects that facilitate the replacement of all major plant within the life of the building e.g. panels in floors/walls that can be removed without affecting the structure, providing lifting beams and hoists. 3. The degree of adaptability of the internal environment to accommodate changes in working practices. 4. The degree of adaptability of the internal physical space and external shell to accommodate change in-use. 5. The extent of accessibility to local services, such as local power, data infrastructure, etc Study needs to be undertaken during **RIBA Stage 2**.
Waste Totals:		**9**	**6**	
Waste score totals:		**9.50**	**6.33**	
LE 01	Site Selection	2	2	**Previously occupied land - 1 / 1 targeted** Requires confirmation that 75% of the new build will be on previously occupied land. **Contaminated land - 1 / 1 targeted** Only available where significant contamination is present.
LE 02	Ecological Value of Site and Protection of Ecological Features	2	2	**Ecological value of site - 1 / 1 credit targeted** Where the site is of low ecological value. **Protection of ecological features - 1 / 1 credit targeted** Requires a suitably qualified ecologist to be appointed to the project. Protection of ecological features needs to be undertaken over the wider site. To be included in the Contractors Responsibility Report.
LE 03	Minimising impact on existing site ecology	2	2	**MINIMUM REQUIREMENT for Excellent rating** - 1 credit **Change in ecological value - 2 / 2 credits targeted** Change in plant species needs to be positive post development.
LE 04	Enhancing site ecology	2	2	A Suitably Qualified Ecologist must be appointed during **Feasibility Stage**. **Ecologist's report and recommendations -1 / 1 credit targeted** Ecologist employed at **RIBA stage 1** to suggest recommendations to increase ecological value of the site. **Increase in ecological value – 1 / 1 credit targeted** These recommendations are included in final design. To achieve the second credit an increase in 6 plant species or higher is needed.

		Available	Targeted	Comments
LE 05	Long Term Impact on Biodiversity	2	2	**2 / 2 credits targeted.** To be included in the Contractors Responsibility Report.
Land Use & Ecology Totals:		**10**	**10**	
Land Use & Ecology score totals:		**10**	**10**	
Pol 01	Impact of Refrigerants	3	2	**Impact of refrigerant – 1 / 2 targeted.** Where the systems using refrigerants have Direct Effect Life Cycle CO_2 equivalent emissions (DELC CO_2e) of ≤1000 $kgCO_2e$ /kW cooling/heating capacity. **Refrigerant leak detection system – 1 / 1 targeted.**
Pol 02	NOx emissions	3	1	**1 / 3 credits targeted** One credit has been targeted due to uncertainty for the NO_X emissions from the Energy Centre. The total NOx emissions will need to be calculated following the BREEAM guidance once there is further information on the specification of the CHP and any additional boilers.
Pol 03	Surface Water Run Off	5	2	**Flood resilience - 0 / 2 not targeted** The site is in an area with a medium/high risk of flooding and therefore would require the ground level of the building and access to both the building and the site, to be designed (or zoned) so they are at least 600mm above the design flood level of the flood zone in which the assessed development is located. **Surface water run-off - 2 / 2 credits targeted** Peak rate of run-off no greater for the developed site than it was for the pre-development site. Flooding of property will not occur in the event oflocal drainage system failure **Pollution prevention - 0 / 1 credits not targeted.** Added as a potential credit. Requires no discharge from the site for rainfall up to 5mm
Pol 04	Reduction of Night Time Light Pollution	1	1	**1 / 1 credits targeted** External lighting meets requirements of the ILP Guidance for the reduction of obtrusive light.
Pol 05	Noise Attenuation	1	1	**1 / 1 credit targeted**
Pollution Totals:		**13**	**7**	
Pollution score totals:		**11.00**	**5.92**	
Man 03	Responsible construction practices	1	0	**-0 / 1 credits not targeted** Requires an exemplary level score for the Considerate Constructors scheme.
Hea 01	Visual Comfort	1	0	**0 / 1 credits not targeted** Daylight factor of each area meets the exemplary thresholds.

		Available	Targeted	Comments
Ene 01	Reduction of energy use and carbon emissions	5	0	**0 / 1 credits not targeted** Based on the percentage of 'regulated' operational energy consumption generated by carbon neutral on-site or near-site sources 1 credit: 10% 2 credits: 20% 3 credits: 50% 4 credits: 80% 5 credits: >100%
Wat 01	Water Consumption	1	0	**0 / 1 credits not targeted** 65% improvement over baseline case.
Mat 01	Life Cycle Impacts	3	0	**0 / 3 credits not targeted** Route 1 (1 credit): Where assessing four or more applicable building elements, the building achieves at least two points in addition to the total points required to achieve maximum credits under the standard BREEAM criteria. Route 2 (2 credits): Where the design team has used an IMPACT compliant software tool (or equivalent) to measure the environmental impact of the building.
Mat 03	Responsible Sourcing of Materials	1	0	**0 / 1 credits not targeted** Responsible Sourcing of Materials points = 70%
Wst 01	Construction Waste Management	1	0	**0 / 1 credits not targeted** Amount of non-hazardous on-site/off-site construction waste (m3/100m^2 or tonnes/100m^2) generated = 1.6 /1.9 Divert from landfill (volume or tonnage) Demolition = 85% volume /95% tonnage Non-demolition = 95% volume /95% tonnage Key waste groups identified for diversion at pre-construction stage Resource Management Plan
Wst 02	Recycled Aggregates	1	0	Significant use (35%) of recycled or secondary aggregates in 'high-grade' building aggregate uses. % of high-grade aggregate specified per application must meet the minimum levels. Elements not meeting the minimum should be considered as primary aggregate when calculating the total high grade aggregate specified. Secondary aggregate must be transported within 30 km by road transport.
Wst 05	Adaptation to climate change	1	0	Above + Hea 04 criterion 6 + 8 credits under Ene 01 + passive design analysis credit under Ene 04 + 3 credits under Wat 01 + Mat 05 criterion 2 + 1 credit under Flood risk and 2 credits under Surface water run-off within Pol 03
AI	Approved Innovation	1	0	Approved Innovation
Innovation Totals:		**16**	**0**	
Innovation score totals:		**16**	**0**	
OVERALL SCORE TOTALS:		**116**	**76.60**	

BREEAM NEW CONSTRUCTION 2014 – HEALTHCARE PRE-ASSESSMENT

		Available	Current	Comments
Man 01	Project brief and design	4	4	**Stakeholder consultation - 2 / 2 credits targeted** Prior to completion of the Concept Design stage, all project delivery stakeholders and relevant third party stakeholders have been consulted by the design team and this covers the minimum consultation content as per BREEAM requirements. Confirm how this changed the project brief / initial design Stakeholders 3rd party: See CN3 note which confirms: external local residents but also future building users, management/maintenance considerations, local community (including transport), and statutory consultation requirements. **Sustainability champion (design) - 1 / 1 credit targeted** Additional appointment of BREEAM AP at RIBA Stage 1. **Sustainability champion (monitoring progress) - 1 / 1 credit targeted** BREEAM AP to attend key project/design team meetings during the Concept Design, Developed Design and Technical Design stages.
Man 02	Life cycle cost and service life planning	4	4	**Elemental LCC – 2 / 2 credits targeted** Additional appointment to carry out an outline, entire asset elemental life cycle cost (LCC) plan life cycle cost analysis at **RIBA stage 2** **Component LCC – 1 / 1 credit targeted** Requires a component level (envelope, services, finishes, etc) LCC analysis to be carried out at RIBA Stage 4. **Capital cost reporting – 1 / 1 credit targeted** This requires reporting the capital cost for the building in pounds per square metre (£k/m2).
Man 03	Responsible construction practices	6	6	**MINIMUM STANDARD for Excellent** - 1 credit under the Considerate Constructors Scheme Pre-requisite - All timber and timber based products used on the project is 'Legally harvested and traded timber' - targeted **Environmental management - 1 / 1 credit targeted** Requires the contractor to operate an environmental management system. To be included in the Contractors Responsibility Report. **Sustainability champion (construction) - 1 / 1 credit targeted** To be included in the Contractors Responsibility Report. **Considerate construction - 2 / 2 credit targeted**

		Available	Current	Comments
				Contractor achieves Considerate Constructors Scheme scores 35 - 39 with at least 7 in each category. **Monitoring of construction site impacts - 2 / 2 credits targeted** To be included in the Contractors Responsibility Report.
Man 04	Commissioning and handover	4	3	**MINIMUM REQUIREMENT for Excellent** - Building User Guide (BUG) **Commissioning and testing schedule and responsibilities – 1 / 1 credit targeted** **Commissioning building services – 1 / 1 credit targeted** To be included in the Contractors Responsibility Report. **Testing and inspecting building fabric – 0 / 1 not targeted.** Remedial works, if required may be costly. **Handover – 1 / 1 credit targeted.** For S&C only criterion 10 is applicable - Building User Guide. **Testing and inspecting building fabric - 0 / 1 credit targeted**
Management Totals:		**18**	**17**	
Management score totals:		**11**	**10.38**	
Hea 01	Visual Comfort	4	1	**Daylighting - 0 / 2 credit targeted** Daylighting study shall be carried out to confirm whether this credit is achievable. Considering that some plans are deep, this will not be easy to achieve. Added as a potential credit **View out -0 / 1 credit targeted** May be achievable. Added as a potential credit. Architects to confirm whether areas where desk based work will be carried out have 95% of the floor area within 7m of a wall which has a window or permanent opening that provides an adequate view out. **Internal and external lighting - 1 / 1 credit targeted** Criteria 7 to 9, 11 to 13 - These criteria are not applicable. Only external lighting criteria apply. All external lighting to be in accordance with BS 5489-1:2013 Lighting of roads and public amenity areas and BS EN 12464-2:2014 Light and lighting - Lighting of work places - Part 2: Outdoor work places.

		Available	Current	Comments
Hea 02	Indoor Air Quality	2	0	**Ventilation - 0/1 not targeted** No credits targeted due to the uncertainty regarding the layout of intakes and exhausts and especially the requirement to have intakes 20m away from sources of external pollution. **Potential for natural ventilation - 0/1 not targeted** Not targeted due to uncertainty for the ventilation strategy. Will be confrmed in later stages.
Hea 04	Thermal comfort	2	2	**Thermal modelling - 1/1 targeted** Requires thermal modelling to be carried out in accordance with CIBSE AM 11. Additional appointment may be needed. **Adaptability - for a projected climate change scenario - 1/1 targeted** Requires thermal modelling to be undertaken at Detailed Design stage and include climate change scenarios.
Hea 05	Acoustic Performance	1	1	**1/1 credits targeted.** A suitably qualified acoustician will need to be appointed. Sound insulation and reverberation criteria: These criteria are not applicable.
Hea 06	Safety and Security	2	2	**Safe access – 1/1 credit targeted.** Compliance with safe access requirements needs to be achieved. **Security of site – 1/1 credit targeted.** The design team will need to seek recommendations from an Architectural Liaison Officer (or Suitably Qualified Security Specialist) during **RIBA stage 2** and implement recommendations into the building design.
Health & Wellbeing Totals:		**11**	**6**	
Health & Wellbeing score totals:		**10.50**	**6.3**	
Ene 01	Reduction of energy use and carbon emissions	12	5	**MINIMUM REQUIREMENT for Excellent rating - 5 credits** Given that there is a GLA requirement for a 35% reduction below Part L 2013 it is expected that the development will achieve at least 5 credits. It's likely that a higher number of credits will be achieved but this will only be confirmed once an energy model is prepared for the building.

		Available	Current	Comments
Ene 02	Energy Monitoring	2	2	**MINIMUM REQUIREMENT for Excellent rating** - 1 credit for sub-metering of major energy systems **Sub-metering of major energy consuming systems - 1 / 1 credits targeted** 1 credit for sub-metering of major energy systems **Sub-metering of high energy load and tenancy areas - 1 / 1 credits targeted** Shell and core: All criteria relevant to the building type and function apply, subject to the following: meters must be installed on the energy supply to each separate tenanted unit or floor plate within the assessed development.
Ene 03	External Lighting	1	1	**1 / 1 credits targeted** Average initial luminous efficacy of the external light fittings within the construction zone is not less than 60 luminaire lumens per circuit Watt and there are daylight sensors.
Ene 04	Low carbon design	3	1	**Passive design - Passive design analysis - 0 / 1 not targeted** Meaningful reduction in the total energy demand as a result of the passive design analysis. **Passive design - Free cooling - 0 / 1 not targeted** Where building does not use cooling. **LZC feasibility - 1 / 1 targeted** Requires a LZC feasibility study to be carried out during **RIBA stage 2**.
Energy Totals:		**18**	**9**	
Energy score totals:		**15.00**	**7.5**	
Tra 01	Public Transport Accessibility	5	5	**5 / 5 credits targeted.** The PTAL for the site indicates that 5 credits can be achieved.
Tra 02	Proximity to amenities	1	1	**1 / 1 credits targeted** Based on having: • food outlet (c) • access to cash (c) • access to an outdoor open space (c) • access to a recreation/leisure facility for fitness/sports within 500m of the building entrance.
Tra 03	Cyclist facilities	2	2	**2 / 2 credits targeted** 1 cycle space per 10 staff 1 cycle space per 2 consulting rooms A 50% reduction on the number of cycle spaces is allowed based on achieving all Tra 01 credits. Compliant cyclist facilities (showers, changing areas etc.)
Tra 04	Maximum car parking capacity	1	1	**1 / 1 credit targeted** The number of car parking spaces to meet the BREEAM criteria

		Available	Current	Comments
Tra 05	Travel Plan	1	1	**1 / 1 credit targeted** Requires a Tra ve.l plan to be developed as part of the feasibility and design stages.
Transport Totals:		**10**	**10**	
Transport score totals:		**10**	**10**	
Wat 01	Water Consumption	5	3	**MINIMUM REQUIREMENT for Excellent rating** - 1 credit **3 / 5 credits targeted** The efficiency of the following 'domestic scale' water-consuming components must be included in the assessment (where specified): 1. WCs 2. Urinals 3. Taps (wash hand basins and where specified kitchen taps and waste disposal unit) 4. Showers 5. Baths 6. Dishwashers (domestic and commercial sized) 7. Washing machines (domestic and commercial or industrial sized). Compliance for this issue must be assessed on the basis of all water-consuming components and greywater and/or rainwater systems specified and installed by the developer. Components or systems listed in the criteria and sited within tenant areas that are not being specified by the developer, but will be specified by the tenant, do not need to be assessed for a shell and core project.
Wat 02	Water Monitoring	1	1	**MINIMUM REQUIREMENT for Excellent rating** - water meter on the mains water supply to each building **1 / 1 credit targeted**
Wat 03	Leak Detection	2	2	**Leak detection system – 1 / 1 credit targeted** Leak detection system installed. **Flow control devices – 1 / 1 credit targeted** Flow control devices per WC area installed.
Wat 04	Water Efficient Equipment	1	1	**1 / 1 credit targeted** All planting specified is restricted to contextually appropriate species that thrive without irrigation and will continue to do so in those conditions likely as a result of climate change, i.e. typically warmer and drier conditions. Or specify other solutions for reducing unregulated water consumption.
Water Totals:		**9**	**7**	
Water score totals:		**7.50**	**5.83**	

		Available	Current	Comments
Mat 01	Life Cycle Impacts	6	6	**6 / 6 credit targeted** Requires that the majority of the materials specified for the building achieve a Green Guide rating of A+ or A. It is recommended that the ratings are checked for all elements in early stages to confirm the number of credits that can be achieved.
Mat 02	Hard Landscaping and Boundary Protection	1	1	**1 / 1 credit targeted** Feedback from the landscape architect given in the previous pre-assessment study indicates that this credit can be targeted. Where at least 80% of all external hard landscaping and 80% of all boundary protection (by area) in the construction zone achieves an A or A+ rating, as defined in the Green Guide to Specification. To be confirmed with landscape architects.
Mat 03	Responsible Sourcing of Materials	4	3	**MINIMUM REQUIREMENT for Excellent rating** - all timber is responsibly sourced **Sustainable procurement plan - 1 / 1 credit targeted** Main contractor has a sustainable procurement plan for sourcing materials **Responsible sourcing of materials - 2 / 3 credit targeted** Score well on sourcing of materials, such as getting materials from ISO14001 rated, are reused, FSC timber, BES 6001 etc. To be included in the Contractors Responsibility Report.
Mat 04	Insulation	1	1	**1 / 1 credits targeted** Building insulation needs to perform well in green guide rating.
Mat 05	Designing for durability and resilience	1	1	**1 / 1 credit targeted** The building incorporates suitable durability and protection measures or designed features/solutions to prevent damage to vulnerable parts of the internal and external building and landscaping elements.
Mat 06	Material efficiency	1	1	**1 / 1 credit targeted** Requires documenting the selection of materials for resource efficiency throughout the whole design and construction process. To be included in the Contractors Responsibility Report.
Materials Totals:		**14**	**13**	
Materials score totals:		**14.50**	**13.46**	

		Available	Current	Comments
Wst 01	Construction Waste Management	4	3	**Construction resource efficiency - 2 / 3 credits targeted** Pre-demolition audit required. Need a Site Waste Management Plan Aiming for waste generation (non-hazardous) to be < 7.5 m3 or <6.5 tonnes per 100m2 GIA **Diversion of resources from landfill - 1 / 1 credit targeted** Aiming for diversion from landfill of 70% volume or 80% tonnage of waste generated.
Wst 02	Recycled Aggregates	1	0	**0 / 1 not targeted** % of recycled aggregates used in specific areas needs to meet following minimum % as per below. Also need total aggregate use to be above 25% recycled. The credit is not targeted as it is hard to achieve.
Wst 03	Operational Waste	1	1	**MINIMUM REQUIREMENT for Excellent rating** - 1 credit **1 / 1 credit targeted** Require dedicated separate waste areas for operational waste, (recycling and general waste). If expecting a lot of waste, e.g. loads of paper, or compostable will need a specific compactor or bailer. (This is likely to be required for retail). Or an adequate space(s) for storing segregated food waste and compostable organic material prior to collection. Only criteria 1 and 2 apply.
Wst 05	Adaptation to climate change	1	0	**0 / 1 credit targeted**- criterion 2 is applicable. Structural and fabric resilience - Requires a climate change adaptation strategy appraisal in terms of fabric and structural resilience to be carried out for the building during RIBA stage 2. Needs to cover items below and any potential mitigation. Items to be covered: i. Hazard identification ii. Hazard assessment iii. Risk estimation iv. Risk evaluation v. Risk management.

		Available	Current	Comments
Wst 06	Functional adaptability	1	1	**1 / 1 credit targeted.** Functional adaptation strategy study needs to include: 1. The potential for major refurbishment, including replacing the façade. 2. Design aspects that facilitate the replacement of all major plant within the life of the building e.g. panels in floors/walls that can be removed without affecting the structure, providing lifting beams and hoists. 3. The degree of adaptability of the internal environment to accommodate changes in working practices. 4. The degree of adaptability of the internal physical space and external shell to accommodate change in-use. 5. The extent of accessibility to local services, such as local power, data infrastructure, etc Study needs to be undertaken during **RIBA Stage 2**.
Waste Totals:		**8**	**5**	
Waste score totals:		**9.50**	**6.33**	
LE 01	Site Selection	2	2	**Previously occupied land - 1 / 1 targeted** Requires confirmation that 75% of the new build will be on previously occupied land. **Contaminated land - 1 / 1 targeted** Only available where significant contamination is present.
LE 02	Ecological Value of Site and Protection of Ecological Features	2	2	**Ecological value of site - 1 / 1 credit targeted** Where the site is of low ecological value. **Protection of ecological features - 1 / 1 credit targeted** Requires a suitably qualified ecologist to be appointed to the project. Protection of ecological features needs to be undertaken over the wider site. To be included in the Contractors Responsibility Report.
LE 03	Minimising impact on existing site ecology	2	2	**MINIMUM REQUIREMENT for Excellent rating** - 1 credit **Change in ecological value - 2 / 2 credits targeted** Change in plant species needs to be positive post development.
LE 04	Enhancing site ecology	2	2	**MINIMUM REQUIREMENT for Excellent rating** - 1 credit A Suitably Qualified Ecologist must be appointed during **Feasibility Stage**. **2 / 2 credits targeted** Ecologist employed at **RIBA stage 1** to suggest recommendations to increase ecological value of the site. These recommendations are included in final design. To achieve the second credit an increase in 6 plant species or higher is needed.

		Available	Current	Comments
LE 05	Long Term Impact on Biodiversity	2	2	**2 / 2 credits targeted.** To be included in the Contractors Responsibility Report.
Land Use & Ecology Totals:		**10**	**10**	
Land Use & Ecology score totals:		**10**	**10**	
Pol 01	Impact of Refrigerants	3	2	**Impact of refrigerant – 1 / 2 targeted.** Where the systems using refrigerants have Direct Effect Life Cycle CO2 equivalent emissions (DELC CO2e) of ≤1000 kgCO2e /kW cooling/heating capacity. **Refrigerant leak detection system – 1 / 1 targeted.**
Pol 02	NOx emissions	3	1	**1 / 3 credits targeted** One credit has been targeted due to uncertainty for the NOX emissions from the Energy Centre. The total NOx emissions will need to be calculated following the BREEAM guidance once there is further information on the specification of the CHP and any additional boilers.
Pol 03	Surface Water Run Off	5	2	**Flood resilience - 0 / 2 not targeted** The site is in an area with a medium/high risk of flooding and therefore would require the ground level of the building and access to both the building and the site, to be designed (or zoned) so they are at least 600mm above the design flood level of the flood zone in which the assessed development is located. This may not be possible, so is still to be confirmed. **Surface water run-off - 2 / 2 credits targeted** **Pollution prevention - 0 / 1 credits not targeted.** Added as a potential credit. Requires no discharge from the site for rainfall up to 5mm
Pol 04	Reduction of Night Time Light Pollution	1	1	**1 / 1 credit targeted** External lighting meets requirements of the ILP Guidance for the reduction of obtrusive light.
Pol 05	Noise Attenuation	1	1	**1 / 1 credit targeted**
Pollution Totals:		**13**	**7**	
Pollution score totals:		**11.00**	**5.92**	
Man 03	Responsible construction practices	1	0	**-0 / 1 credits not targeted** Requires an exemplary level score for the Considerate Constructors scheme.
Hea 01	Visual Comfort	1	0	**0 / 1 credits not targeted** Daylight factor of each area meets the exemplary thresholds.

		Available	Current	Comments
Ene 01	Reduction of energy use and carbon emissions	5	0	**0 / 1 credits not targeted** Based on the percentage of 'regulated' operational energy consumption generated by carbon neutral on-site or near-site sources 1 credit: 10% 2 credits: 20% 3 credits: 50% 4 credits: 80% 5 credits: >100%
Wat 01	Water Consumption	1	0	**0 / 1 credits not targeted** 65% improvement over baseline case.
Mat 01	Life Cycle Impacts	3	0	**0 / 3 credits not targeted** Route 1 (1 credit): Where assessing four or more applicable building elements, the building achieves at least two points in addition to the total points required to achieve maximum credits under the standard BREEAM criteria. Route 2 (2 credits): Where the design team has used an IMPACT compliant software tool (or equivalent) to measure the environmental impact of the building.
Mat 03	Responsible Sourcing of Materials	1	0	**0 / 1 credits not targeted** Responsible Sourcing of Materials points = 70%
Wst 01	Construction Waste Management	1	0	**0 / 1 credits not targeted** Amount of non-hazardous on-site/off-site construction waste (m3/100m^2 or tonnes/100m^2) generated = 1.6 /1.9 Divert from landfill (volume or tonnage) Demolition = 85% volume /95% tonnage Non-demolition = 95% volume /95% tonnage Key waste groups identified for diversion at pre-construction stage Resource management Plan
Wst 02	Recycled Aggregates	1	0	Significant use (35%) of recycled or secondary aggregates in 'high-grade' building aggregate uses. % of high-grade aggregate specified per application must meet the minimum levels. Elements not meeting the minimum should be considered as primary aggregate when calculating the total high grade aggregate specified. Secondary aggregate must be transported within 30 km by road transport.
Wst 05	Adaptation to climate change	1	0	Above + Hea 04 criterion 6 + 8 credits under Ene 01 + passive design analysis credit under Ene 04 + 3 credits under Wat 01 + Mat 05 criterion 2 + 1 credit under Flood risk and 2 credits under Surface water run-off within Pol 03
AI	Approved Innovation	1	0	Approved Innovation
Innovation Totals:		**16**	**0**	
Innovation score totals:		**16**	**0**	
OVERALL SCORE TOTALS:		**116**	**75.70**	