



CHARLTON RIVERSIDE

PHASE 1

BREEAM PRE-ASSESSMENT

Intended for
Leopard Guernsey Anchor Propco Limited

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1. EXECUTIVE SUMMARY

Ramboll has been commissioned by the Leopard Guernsey Anchor Propco Limited to carry out the BREEAM pre-assessment for the Charlton Riverside development, in New Charlton, Greenwich. The 2.53 ha site is located within the Charlton area and is currently predominately occupied by industrial warehouses and business park units. The proposed development comprises:

- 975 residential units provided within 9 buildings ranging in height from 2 to 28 storeys, including extensive private gardens and roof terraces;
- 1,560 sqm (GIA) of office space;
- Ancillary residential facilities including gym, swimming pool, changing rooms totalling 864 sqm (GIA);
- 690 sqm (GIA) of flexible retail/restaurant/café/leisure use;
- 407 sqm (GIA) of community uses;
- Extensive external public realm improvements and landscaping; and
- Parking, services, plant and circulation.

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) requirements.

As agreed with the client, two pre-assessments were undertaken to account for the different category uses within the proposed development. A BREEAM offices pre-assessment was carried out to cover the offices and flexible commercial units, as well as some of the potential community uses (e.g. crèche). A separate BREEAM Healthcare pre-assessment was undertaken to determine the targeted score for any space that may potentially be used as a medical/dental clinic (i.e. community use).

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/office space units and the community spaces at the Charlton Riverside development is to achieve a rating of 'Excellent' in accordance with the planning requirements set out in the Royal Greenwich Local Plan. 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 70.30% is achievable for the units assessed under BREEAM New Construction 2014 as offices, flexible commercial space and crèche (i.e. community use). This score translates into a BREEAM rating of 'Excellent'.

An 'Excellent' rating is also being targeted for the medical/dental clinic (i.e. community use) assessed as a healthcare building type. The pre-assessment score for this unit is 70.60%.

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 the tracker in Appendix A.

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 \geq 30%
- Good \geq 45%
- Very Good \geq 55%
- Excellent \geq 70%
- Outstanding \geq 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 4.1) 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 flexible commercial space, office units and crèche (i.e. community use), is provided in Table 1. This shows the weighted percentage value for each section.

Table 1. Pre-assessment BREEAM result for office units

BREEAM Section	Credits Targeted	Credits Available	% of Credits Achieved	Section Weighting	Section score
Management	17	18	94.44%	0.11	10.38%
Health & Wellbeing	5	10	50.00%	0.105	5.25%
Energy	9	18	50.00%	0.15	7.50%
Transport	8	9	88.89%	0.10	8.89%
Water	7	9	77.78%	0.075	5.83%
Materials	10	13	76.92%	0.145	11.15%
Waste	5	9	55.56%	0.095	5.27%
Land Use & Ecology	10	10	100.00%	0.11	11.00%
Pollution	6	13	46.15%	0.11	5.07%
Total Score					70.30%
Innovation Credits Achieved					0.00%
FINAL BREEAM Score					70.30%
BREEAM Rating					Excellent

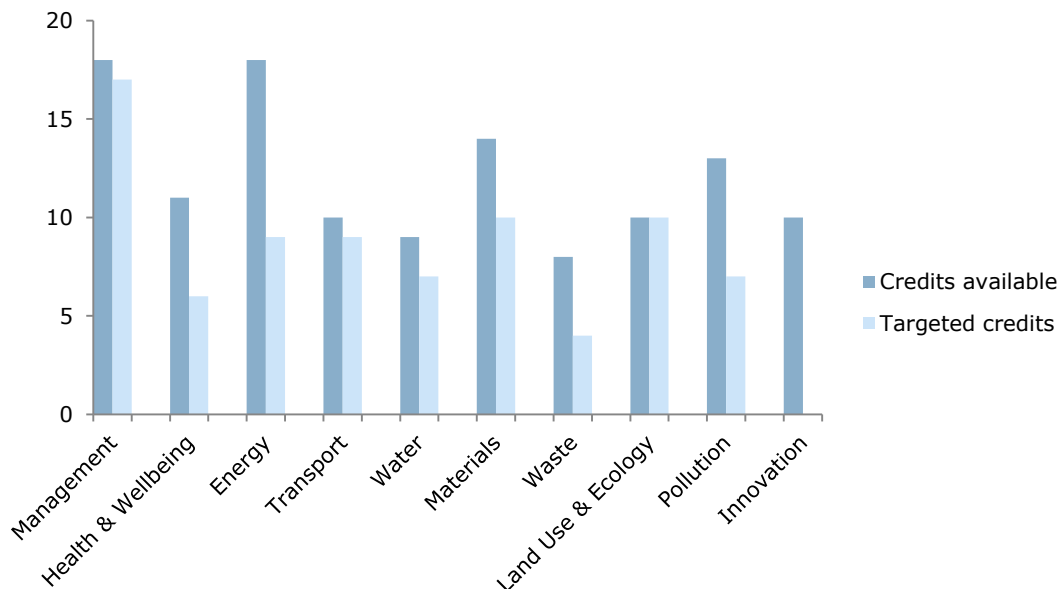
Table 2 summarizes the minimum standards that need to be achieved in order to qualify for an 'Excellent' rating. All minimum standards for an 'Excellent' rating have been targeted for the proposed development.

Table 2. Compliance with BREEAM minimum standards for an Excellent rating

Minimum Standards for BREEAM 'Excellent' rating	Targeted?
Man 03 – Responsible construction practices (CCS)	✓
Man 04 – Commissioning and handover (BUG)	✓
Man 05 – Aftercare (Seasonal commissioning)	✓
Ene 01 – Reduction of energy use and carbon emissions (5 credits)	✓
Ene 02 – Energy monitoring (first credit)	✓
Wat 01 - Water consumption	✓
Wat 02 – Water monitoring	✓
Mat 03 – Responsible sourcing	✓
Wst 03 – Operational waste	✓
LE 03 – Mitigating ecological impact	✓

Figure 1 sets out how the office and commercial 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 70.30%, 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 (i.e. community use), is provided in Table 3, which also shows the weighted percentage value for each section.

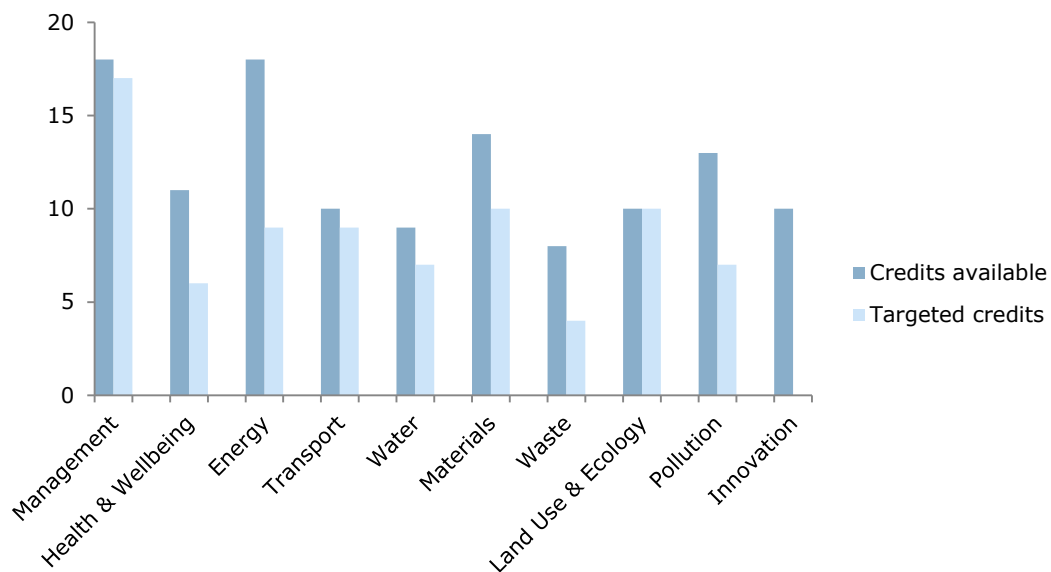
Table 2. Pre-assessment BREEAM result for Healthcare unit

BREEAM Section	Credits Targeted	Credits Available	% of Credits Achieved	Section Weighting	Section score
Management	17	18	94.44%	0.11	10.38%
Health & Wellbeing	6	11	54.55%	0.105	5.72%
Energy	9	18	39.13%	0.15	7.50%
Transport	9	10	90.00%	0.10	9.00%
Water	7	9	77.78%	0.075	5.83%
Materials	11	14	71.43%	0.145	11.39%
Waste	4	8	50.00%	0.095	4.75%
Land Use & Ecology	10	10	100.00%	0.11	11.00%
Pollution	6	13	53.85%	0.11	5.07%
Total Score					70.60%
Innovation Credits Achieved					0.00%
FINAL BREEAM Score					70.60%
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 (i.e. community use). The current targeted score for the healthcare unit is 70.40% 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 healthcare unit



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 requirements described below have been summarized and therefore do not correspond to the full set of requirements that need to be achieved in order for the credit to be awarded.

1.1 Targeted credits

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 - Sustainability Champion (design)

A Sustainability Champion is appointed during the feasibility stage (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).

Man 02 Life cycle cost and service life planning

An elemental life cycle cost (LCC) analysis has been carried out at Process Stage 2 (equivalent to Concept Design - RIBA Stage 2) together with any design option appraisals.

Hea 06 Security of site and building

A suitably qualified security specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (RIBA Stage 2 or equivalent) and provides a set of recommendations or solutions.

Ene 04 Low carbon design

One credit - Low zero carbon feasibility study

The feasibility study is updated by the completion of the Concept Design stage (RIBA Stage 2).

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.

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 with appropriate recommendations for the enhancement of the site's ecology at Concept Design stage (RIBA Stage 2).

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' all commercial and community areas of the 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 ABREEAM NEW CONSTRUCTION 2014 – OFFICES PRE-ASSESSMENT

		Available	Current	Comments
Man 01	Project brief and design	4	4	<p>Stakeholder consultation - 1/1 credits targeted</p> <p>Stakeholder consultation (third party) - 1/1 credits targeted</p> <p>Sustainability champion (design) - 1/1 credit targeted Additional appointment of BREEAM AP at RIBA Stage 1</p> <p>Sustainability champion (monitoring progress) - 1/1 credit targeted</p>
Man 02	Life cycle cost and service life planning	4	4	<p>Elemental LCC – 2/2 credits targeted Additional appointment to carry out a life cycle cost analysis at RIBA stage 2</p> <p>Component LCC – 1/1 credit targeted Requires a component level (envelope, services, finishes, etc) LCC analysis to be carried out at RIBA Stage 4.</p> <p>Capital cost reporting – 1/1 credit targeted</p>
Man 03	Responsible construction practices	6	6	<p>MINIMUM STANDARD for Excellent - 1 credit under the Considerate Constructors Scheme</p> <p>Pre-requisite (Responsibly sourced timber) – Targeted</p> <p>Environmental management - 1/1 credit targeted</p> <p>Sustainability champion (construction) - 1/1 credit targeted</p> <p>Considerate construction - 2/2 credit targeted</p> <p>Monitoring of construction site impacts - 2/2 credits targeted</p>
Man 04	Commissioning and handover	4	3	<p>MINIMUM REQUIREMENT for Excellent - Building User Guide (BUG)</p> <p>Commissioning and testing schedule and responsibilities – 1/1 credit targeted</p> <p>Commissioning building services – 1/1 credit targeted</p> <p>Testing and inspecting building fabric – 0/1 not targeted.</p>

				Handover – 1/1 credit targeted. Prepare a Building User Guide and a training schedule.
Management Totals:		18	17	
Management score totals:		11	10.38	
Hea 01	Visual Comfort	3	1	Daylighting – 0/1 not targeted Once a daylighting study is carried out it may be possible to achieve 1 credit. View out – 0/1 not targeted 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
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. Building is mechanically ventilated and with no openable windows.
Hea 04	Thermal comfort	2	1	Thermal modelling – 1/1 credit targeted. Requires additional appointment. Adaptability for projected climate change – 0/1 not targeted. Requires thermal modelling for a projected climate change scenario. Not targeted as it may not be possible to demonstrate that the building can easily be adapted in the future through passive design.
Hea 05	Acoustic Performance	1	1	Indoor ambient noise level - 1/1 credit targeted
Hea 06	Safety and Security	2	2	Safe access – 1/1 credit targeted. Security of site – 1/1 credit targeted. The design team will need to seek recommendations from an ALO (or Suitably Qualified Security Specialist) during RIBA stage 2 and implement recommendations into the building design.
Health & Wellbeing Totals:		10	5	
Health & Wellbeing score totals:		10.50	5.25	
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.
Ene 02	Energy Monitoring	2	2	<p>MINIMUM REQUIREMENT for Excellent rating – First sub-metering credit</p> <p>Sub metering of major energy consuming systems – 1/1 credit targeted</p> <p>Sub metering of high energy load areas – 1/1 credit targeted</p>
Ene 03	External Lighting	1	1	<p>1/1 credit targeted</p> <p>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.</p>
Ene 04	Low carbon design	3	1	<p>Passive design analysis – 0/1 not targeted.</p> <p>Free cooling – 0/1 not targeted.</p> <p>Low zero carbon feasibility study – 1/1 credit targeted.</p> <p>Requires a LZC feasibility study to be carried out during RIBA stage 2.</p>
Energy Totals:		18	9	
Energy score totals:		15.00	7.50	
Tra 01	Public Transport Accessibility	3	3	<p>3/3 credits targeted.</p> <p>The PTAL for the site indicates that 3 credits can be achieved.</p>
Tra 02	Proximity to amenities	1	1	<p>1/1 credit targeted.</p> <p>Based on having:</p> <ul style="list-style-type: none"> - food outlet - access to cash - child care facility - access to an outdoor open space <p>within 500m of the building entrance.</p>
Tra 03	Cyclist facilities	2	1	<p>1/2 credits targeted</p> <p>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.</p> <p>Cyclist facilities may not be easy to provide due to space requirements. Added as a potential credit.</p>
Tra 04	Maximum car parking capacity	2	2	<p>2/2 credits targeted.</p> <p>No parking provided for commercial units.</p>

Tra 05	Travel Plan	1	1	1/1 credit targeted The transport statement will be reviewed by the BREEAM assessor when it is complete.
Transport Totals:		9	8	
Transport score totals:		10	8.89	
Wat 01	Water Consumption	5	3	3/5 credits have been targeted as a conservative approach. 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 Flow control devices – 1/1 credit targeted
Wat 04	Water Efficient Equipment	1	1	1/1 credits targeted
Water Totals:		9	7	
Water score totals:		7.50	5.83	
Mat 01	Life Cycle Impacts	5	3	3/5 credits targeted Requires materials to be specified in accordance with the Green Guide. Credits will be calculated based on the rating(s) achieved for the specifications that make up the main building elements.
Mat 02	Hard Landscaping and Boundary Protection	1	1	1/1 credit 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 Responsible sourcing of materials - 2/3 credit targeted
Mat 04	Insulation	1	1	1/1 credit targeted.

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.
Materials Totals:		13	10	
Materials score totals:		14.50	11.15	
Wst 01	Construction Waste Management	4	2	Construction resource efficiency - 1/3 credits targeted Pre-demolition audit required. Diversion of resources from landfill - 1/1 credit targeted
Wst 02	Recycled Aggregates	1	0	0/1 not targeted
Wst 03	Operational Waste	1	1	MINIMUM REQUIREMENT for Excellent rating - 1 credit 1/1 credit targeted
Wst 04	Speculative floor and ceiling finishes	1	1	1/1 credit targeted
Wst 05	Adaptation to climate change	1	0	0/1 not targeted
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:		9	5	
Waste score totals:		9.50	5.27	

LE 01	Site Selection	2	2	Previously occupied land - 1/1 targeted Contaminated land - 1/1 targeted
LE 02	Ecological Value of Site and Protection of Ecological Features	2	2	Ecological value of site – 1/1 credit targeted Protection of ecological features – 1/1 credit targeted.
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
LE 04	Enhancing site ecology	2	2	Ecologist's report and recommendations -1/1 credit targeted Increase in ecological value – 1/1 credit targeted
LE 05	Long Term Impact on Biodiversity	2	2	2/2 credits targeted.
Land Use & Ecology Totals:		10	10	
Land Use & Ecology score totals:		10	10	
Pol 01	Impact of Refrigerants	3	0	Impact of refrigerant – 0/2 not targeted. No credits have been targeted due to uncertainty regarding presence of refrigerants in the building. May be a potential credit to achieve. Refrigerant leak detection system – 0/1 targeted
Pol 02	NOx emissions	3	2	2/3 credits targeted Requires confirmation once heating and hot water systems have been selected.
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
Pol 04	Reduction of Night Time Light Pollution	1	1	1/1 credit targeted.
Pol 05	Noise Attenuation	1	1	1/1 credit targeted.
Pollution Totals:		13	6	
Pollution score totals:		11.00	5.07	
Man 03	Responsible construction practices	1	0	
Hea 01	Visual Comfort	1	0	-

Hea 02	Indoor Air Quality	2	0	-
Ene 01	Reduction of energy use and carbon emissions	5	0	-
Wat 01	Water Consumption	1	0	-
Mat 01	Life Cycle Impacts	3	0	-
Mat 03	Responsible Sourcing of Materials	1	0	-
Wst 01	Construction Waste Management	1	0	-
Wst 02	Recycled Aggregates	1	0	-
Wst 05	Adaptation to climate change	1	0	-
AI	Approved Innovation	1	0	-
Innovation Totals:		16	0	
Innovation score totals:		16	0	
OVERALL SCORE TOTALS:		116	70.30	

BREEAM NEW CONSTRUCTION 2014 – HEALTHCARE PRE-ASSESSMENT

		Available	Current	Comments
Man 01	Project brief and design	4	4	<p>Stakeholder consultation - 1/1 credits targeted</p> <p>Stakeholder consultation (third party) - 1/1 credits targeted</p> <p>Sustainability champion (design) - 1/1 credit targeted Additional appointment of BREEAM AP at RIBA Stage 1</p> <p>Sustainability champion (monitoring progress) - 1/1 credit targeted</p>
Man 02	Life cycle cost and service life planning	4	4	<p>Elemental LCC – 2/2 credits targeted Additional appointment to carry out a life cycle cost analysis at RIBA stage 2</p> <p>Component LCC – 1/1 credit targeted Requires a component level (envelope, services, finishes, etc) LCC analysis to be carried out at RIBA Stage 4.</p> <p>Capital cost reporting – 1/1 credit targeted</p>
Man 03	Responsible construction practices	6	6	<p>MINIMUM STANDARD for Excellent - 1 credit under the Considerate Constructors Scheme</p> <p>Pre-requisite (Responsibly sourced timber) – Targeted</p> <p>Environmental management - 1/1 credit targeted</p> <p>Sustainability champion (construction) - 1/1 credit targeted</p> <p>Considerate construction - 2/2 credit targeted</p> <p>Monitoring of construction site impacts - 2/2 credits targeted</p>

Man 04	Commissioning and handover	4	3	<p>MINIMUM REQUIREMENT for Excellent - Building User Guide (BUG)</p> <p>Commissioning and testing schedule and responsibilities – 1/1 credit targeted</p> <p>Commissioning building services – 1/1 credit targeted</p> <p>Testing and inspecting building fabric – 0/1 not targeted.</p> <p>Handover – 1/1 credit targeted. Prepare a Building User Guide and a training schedule.</p>
Management Totals:		18	17	
Management score totals:		11	10.38	
Hea 01	Visual Comfort	4	2	<p>Daylighting – 0/2 not targeted Once a daylighting study is carried out it may be possible to achieve 2 credits.</p> <p>View out – 1/1 targeted 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.</p> <p>Internal and external lighting – 1/1 credit targeted</p>
Hea 02	Indoor Air Quality	2	0	<p>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.</p> <p>Potential for natural ventilation – 0/1 not targeted. Building is mechanically ventilated and with no openable windows.</p>
Hea 04	Thermal comfort	2	1	<p>Thermal modelling – 1/1 credit targeted. Requires additional appointment.</p> <p>Adaptability for projected climate change – 0/1 not targeted. Requires thermal modelling for a projected climate change scenario. Not targeted as it may not be possible to demonstrate that the building can easily be adapted in the future through passive design.</p>
Hea 05	Acoustic Performance	1	1	Indoor ambient noise level - 1/1 credit targeted

Hea 06	Safety and Security	2	2	Safe access – 1/1 credit targeted. Security of site – 1/1 credit targeted. The design team will need to seek recommendations from an ALO (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	5.72	
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.
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 Sub metering of high energy load areas – 1/1 credit targeted
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. Free cooling – 0/1 not targeted. 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	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 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	1	1/2 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. Cyclist facilities may not be easy to provide due to space requirements. Added as a potential credit.
Tra 04	Maximum car parking capacity	1	1	1/1 credits targeted. No parking provided for commercial units.
Tra 05	Travel Plan	1	1	1/1 credit targeted The transport statement will be reviewed by the BREEAM assessor when it is complete.
Transport Totals:		10	9	
Transport score totals:		10	9	
Wat 01	Water Consumption	5	3	3/5 credits have been targeted as a conservative approach. 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 Flow control devices – 1/1 credit targeted
Wat 04	Water Efficient Equipment	1	1	1/1 credits targeted
Water Totals:		9	7	
Water score totals:		7.50	5.83	

Mat 01	Life Cycle Impacts	6	4	4/6 credits targeted Requires materials to be specified in accordance with the Green Guide. Credits will be calculated based on the rating(s) achieved for the specifications that make up the main building elements.
Mat 02	Hard Landscaping and Boundary Protection	1	1	1/1 credit 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 Responsible sourcing of materials - 2/3 credit targeted
Mat 04	Insulation	1	1	1/1 credit targeted.
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 not targeted
Materials Totals:		14	11	
Materials score totals:		14.50	11.39	
Wst 01	Construction Waste Management	4	2	Construction resource efficiency - 1/3 credits targeted Pre-demolition audit required. Diversion of resources from landfill - 1/1 credit targeted
Wst 02	Recycled Aggregates	1	0	0/1 not targeted
Wst 03	Operational Waste	1	1	MINIMUM REQUIREMENT for Excellent rating - 1 credit 1/1 credit targeted
Wst 05	Adaptation to climate change	1	0	0/1 not targeted

Wst 06	Functional adaptability	1	1	<p>1/1 credit targeted.</p> <p>Functional adaptation strategy study needs to include:</p> <ol style="list-style-type: none"> 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 <p>Study needs to be undertaken during RIBA Stage 2.</p>
Waste Totals:		8	4	
Waste score totals:		9.50	4.75	
LE 01	Site Selection	2	2	<p>Previously occupied land - 1/1 targeted</p> <p>Contaminated land - 1/1 targeted</p>
LE 02	Ecological Value of Site and Protection of Ecological Features	2	2	<p>Ecological value of site – 1/1 credit targeted</p> <p>Protection of ecological features – 1/1 credit targeted.</p>
LE 03	Minimising impact on existing site ecology	2	2	<p>MINIMUM REQUIREMENT for Excellent rating - 1 credit</p> <p>Change in ecological value - 2/2 credits targeted</p>
LE 04	Enhancing site ecology	2	2	<p>Ecologist's report and recommendations -1/1 credit targeted</p> <p>Increase in ecological value – 1/1 credit targeted</p>
LE 05	Long Term Impact on Biodiversity	2	2	2/2 credits targeted.
Land Use & Ecology Totals:		10	10	
Land Use & Ecology score totals:		10	10	
Pol 01	Impact of Refrigerants	3	0	<p>Impact of refrigerant – 0/2 not targeted.</p> <p>No credits have been targeted due to uncertainty regarding presence of refrigerants in the building. May be a potential credit to achieve.</p> <p>Refrigerant leak detection system – 0/1 targeted</p>

Pol 02	NOx emissions	3	2	2/3 credits targeted Requires confirmation once heating and hot water systems have been selected.
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
Pol 04	Reduction of Night Time Light Pollution	1	1	1/1 credit targeted.
Pol 05	Noise Attenuation	1	1	1/1 credit targeted.
Pollution Totals:		13	6	
Pollution score totals:		11.00	5.07	
Man 03	Responsible construction practices	1	0	
Hea 01	Visual Comfort	1	0	-
Hea 02	Indoor Air Quality	2	0	-
Ene 01	Reduction of energy use and carbon emissions	5	0	-
Wat 01	Water Consumption	1	0	-
Mat 01	Life Cycle Impacts	3	0	-
Mat 03	Responsible Sourcing of Materials	1	0	-
Wst 01	Construction Waste Management	1	0	-
Wst 02	Recycled Aggregates	1	0	-
Wst 05	Adaptation to climate change	1	0	-
AI	Approved Innovation	1	0	-
Innovation Totals:		16	0	
Innovation score totals:		16	0	
OVERALL SCORE TOTALS:		116	70.60	