



The Manchester College,

Openshaw Campus Redevelopment

BREEAM 2014 Bespoke

Stage 2 Pre-Assessment Target Report

- REV B

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revision: B

BREEAM: 2014 Bespoke

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Rev.	Date	Compiled / Checked by	Revision / Document Description
0	16.05.19	SS / WB	BREEAM Pre-Assessment Target Report
A	29.05.19	SS	Updated target following review meeting
B	08.07.19	SS	Updated target with no fume cupboards

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1.0 Introduction

Scott Hughes Design have been appointed to undertake a BREEAM 2014 Bespoke (Combined Refurbishment & Fit Out and New Construction) assessment of the proposed refurbishment and new build extension works within the Openshaw campus of The Manchester College (TMC).

The purpose of this report is to provide the Design & Construction Team with information relating to the key actions that should be carried out to ensure successful certification. The team should take cognisance of the information and guidance provided within this report and associated documentation, to assist them in ensuring that the design accounts for the full BREEAM requirements.

2.0 Meetings and Attendees

A Stage 2 BREEAM pre-assessment meeting for the project was held on 25th April 2019 at BDP's offices in Manchester. The meeting was attended by:

- Niall Wright (The Manchester College)
- Nick Richardson (Reiach and Hall Architects)
- Peter Ridge (BDP M&E)
- Andrew Williams (BDP C&S)
- Amy Sykes (RLB)
- John Pearson (Pearson Fraser)
- Richard Fraser (Pearson Fraser)
- Susie Sidley - Scott Hughes Design (BREEAM Assessor & AP)

A further Stage 2 BREEAM review meeting was held on 23rd May 2019 at Manchester College, attended by:

- Niall Wright (The Manchester College)
- Nick Richardson (Reiach and Hall Architects)
- Peter Ridge (BDP M&E)
- John Pearson (Pearson Fraser)
- Richard Fraser (Pearson Fraser)
- Susie Sidley - Scott Hughes Design (BREEAM Assessor & AP)

3.0 Project Description

The proposed development comprises the part-refurbishment of the existing Whitworth Building, plus construction of new build extension(s) to provide a new centre for Sports, and new workshops for Engineering. The exact layout of the extensions and the scope of the refurbishment is currently being determined.

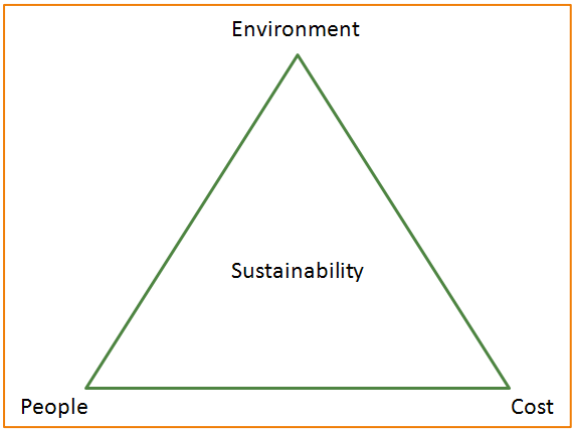
The external works will include hard and soft landscaping around the building.

4.0 Project Programme

Currently the design is at RIBA Stage 2. The expected programme is still evolving but it is expected that construction works will commence early 2020, with the project fully completed by early 2022.

5.0 Background to Sustainable Design and BREEAM

Sustainability is defined as the ability to meet the needs of today, without compromising the ability of future generations to provide for the needs of tomorrow. It can be described as the equilibrium between environmental and financial considerations, and the needs of the community. A truly sustainable development will achieve a balance between fitness-for-purpose, value-for-money and environmental impact and will achieve this via integration as part of a larger, sustainable community.



BREEAM (Building Research Establishment's Environmental Assessment Method) is a voluntary scheme that can be used to assess the environmental life cycle of new non-domestic buildings, plus existing buildings undergoing refurbishment or fit-out, at the design and construction stages.

BREEAM Refurbishment & Fit-Out 2014 is used to assess buildings undergoing refurbishment or fit-out, while BREEAM New Construction 2014 is used to assess new buildings. Projects which involve both can be assessed using BREEAM Bespoke, which involves development of methodology which combines elements of the two schemes so that one BREEAM rating can be achieved for the completed building.

Buildings are assessed under BREEAM using a system of credits. The credits are grouped within the following categories:

- Management
- Health and Well Being
- Energy
- Transport
- Water
- Materials
- Waste
- Land Use and Ecology
- Pollution

Within each of the BREEAM categories, there are a number of credit requirements that reflect the options available to designers and managers of buildings.

BREEAM Section	% Weighting (BREEAM Bespoke 2014)
Management	13.3%
Health & Wellbeing	15.11%
Energy	14.67%
Transport	6.65%
Water	6.65%
Materials	13.85%
Waste	7.62%
Land Use & Ecology	11.08%
Pollution	11.08%

An environmental weighting is applied to the scores achieved under each category, as shown in the adjacent table, in order to calculate the final BREEAM score. The weighting factors have been derived from consensus based research with various groups such as government, material suppliers and lobbyists. This research was carried out by BRE to establish the relative importance of each environmental issue.

The assessment process results in a report covering the issues assessed together with a formal certification giving a rating on a scale of PASS, GOOD, VERY GOOD, EXCELLENT and OUTSTANDING.

6.0 BREEAM Strategy and Targets

The Manchester College are required to achieve a BREEAM certification level of 'Very Good' for the project as part of the funding application. The following report outlines how this can be achieved. In all assessments we recommend a 5% score buffer to allow for unexpected changes or compliance issues as the project progresses.

The project has been registered under the BREEAM 2014 Bespoke scheme (ref: BREEAM-0078-1021).

Please note that within the pre-assessment there may be issues which are outside of the current scope of works/specification. Attention must be paid to ALL credits listed within the Target Report, to ensure the necessary measures required to achieve the associated credits are feasible, and if so, incorporated within specifications.

It is sometimes the case that achievement of a particular BREEAM credit comes with a disproportionately increased cost, without offering equivalent advantages in functionality or sustainability. We would recommend that any such issues are identified early and that these issues are only incorporated within the design once a cost-benefit analysis has been carried out.

It is important to build a robust strategy for the BREEAM certification process into the project programme to ensure that the Client's requirements can be achieved. It was agreed that the best route would be for a 'Managed' Post Construction Assessment. A single report will be submitted to the BRE following completion, rather than separate interim (design stage) and final (post construction) submissions. This option provides a more streamlined approach to assessment. It has the benefit of continual assessment throughout the design and construction phases and allows changes to be picked up as they occur.

In order for the Certification to be a smooth process for all concerned, an Information Required Schedule will be issued, depicting all the required information with an indication of when it should be issued for assessment. It is by this approach that we ensure a constant flow of information and avoid credit time deadlines being missed and the BREEAM rating jeopardised.

7.0 Time Dependant Actions Required to Maximise BREEAM Score

There are various key actions that are time dependant. These include actions which must be completed within certain time periods and general early actions to help maximise the BREEAM potential. Time dependant actions targeted to achieve a Very Good rating, plus those which have been identified as 'possible' credits are identified within the table below.

BREEAM credit ref	BREEAM credit name	Time requirements	Comment	Owner
RIBA Stage 1				
Man 01 Req 1-4	Stakeholder Consultation (Project Delivery)	Develop a Sustainability Brief **prior to Stage 2.**	Pearson Fraser to put together the Sustainability Brief for the project. It is thought this has been done but will involve a combination of existing brief documents.	Manchester College / Pearson Fraser
Man 01 Req 9-10	Sustainability Champion	Appoint a Sustainability Champion at **Stage 1.**	Susie Sidley (SHD) appointed to carry out the Sustainability Champion role.	SHD
LE04	Enhancing Site Ecology	Appoint an Ecologist before the end of **Stage 1** to advise on enhancing ecology.	An ecologist was appointed to undertake a site survey in April 2017.	Reiach & Hall
RIBA Stage 2				
Man 01 Req 1-4	Stakeholder Consultation (Project Delivery)	Prior to the end of **Stage 2,** project stakeholders to meet to define roles & responsibilities.	Pearson Fraser to ensure all considerations are included. Some information already submitted.	Pearson Fraser
Man 01 Req 9-10	Sustainability Champion	Formally agree BREEAM performance targets at **Stage 2.** Sustainability Champion to attend a meeting during **Stage 2** and to send out a progress report.	Susie Sidley (SHD) appointed to carry out the Sustainability Champion role. Manchester College to formally agree BREEAM targets with design team.	SHD / Manchester College

BREEAM credit ref	BREEAM credit name	Time requirements	Comment	Owner
Man 02	Life Cycle Costing	Carry out an Elemental Life Cycle Plan at **Stage 2** to include options appraisal, servicing strategy and fit-out strategy.	Pearson Fraser to complete this work ASAP.	Pearson Fraser
Hea 06	Security of Site & Building	Prior to the end of **Stage 2**, a Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA).	Reiach & Hall have appointed the SQSS, report to follow.	Reiach & Hall
Ene 04 Req 7-8	LZC Feasibility study	Prior to the end of **Stage 2** produce a low carbon feasibility study and confirm that there is a 5% contribution to carbon reduction from specified LZC technologies	BDP have confirmed this has been done, report to follow.	BDP
Tra 05	Travel Plan	Develop a Travel Assessment / Statement and Travel Plan as part of the **feasibility and design stages.**	Existing Travel Plan reviewed by SHD, a few changes needed. Updated TA and TP being prepared by SK- draft issued.	Manchester College
Wst 01	Pre-Refurbishment Audit	Carry out a pre-refurbishment audit during **Stage 2** and prior to strip-out.	Initial pre-refurbishment audit has been undertaken by the team, however, need to add in potential for materials removed from site to be recycled. Manchester College to ensure this is carried out by a competent person.	Manchester College / Reiach & Hall
Wst 05	Adaptation to Climate Change	Produce 'Climate Change Adaptation Strategy Appraisal' by the end of **Stage 2.**	BDP / Reiach & Hall to complete. This can be done early Stage 3 with justification.	Reich & Hall
Wst 06	Functional Adaptability	Produce a 'Building-Specific Functional Adaptation Strategy Study' by the end of **Stage 2.**	BDP / Reiach & Hall to complete. This can be done early Stage 3 with justification.	Reiach & Hall
LE04	Enhancing Site Ecology	Ecologist to provide an Ecology Report with recommendations during **Stage 2** based on a site survey.	An ecologist undertook a site survey in April 2017, this is to be updated. Pearson Fraser to ensure ecologist completes the GN13.	Pearson Fraser

BREEAM credit ref	BREEAM credit name	Time requirements	Comment	Owner
RIBA Stage 3				
Man 01 Req 9-10	Sustainability Champion	Sustainability Champion to attend a meeting during **Stage 3** and to send out a progress report.	Susie Sidley (SHD) appointed to carry out the Sustainability Champion role.	SHD
Hea 04*	Thermal modelling	Conduct a CIBSE AM11 compliant 'Thermal Model' against both current climatic (and, if sought future climatic conditions) and achieve CIBSE Guide A TORs.	BDP to complete.	BDP
Hea 05*	Acoustic Performance	Appoint an acoustician to review the building against BS8233:2014 & make recommendations for architect to take forward.	Reiach & Hall are obtaining quotes for an acoustician, to be confirmed.	Reiach & Hall
Ene 01*	Reduction in CO2 Emissions	Undertake Part L BRUKL calculations for the new extension(s).	BDP have provided initial BRKL calculations based on use of PVs. To be updated as design evolves.	BDP
Mat 05*	Designing for Durability and Resilience	Carry out a 'Material Degradation Review'.	Reiach & Hall to complete.	Reiach & Hall
RIBA Stage 4				
Man02	Component Level Life Cycle Cost Plan (Potential Credit Only)	If sought, a component level LCC plan needs to be developed in line with PD 156865:2008, prior to the end of RIBA Stage 4. This needs to include: envelope, services, finishes & External hard landscaping & boundary protection.	Pearson Fraser to confirm whether this can be done.	Pearson Fraser
Man04	Commissioning Building and Design	A specialist commissioning manager needs to be appointed to undertake commissioning design reviews and giving advice on suitability for ease of commissioning.	To be reviewed by BDP / Contractor.	BDP

BREEAM credit ref	BREEAM credit name	Time requirements	Comment	Owner
Hea02*	Indoor Air Quality	Produce an indoor air quality plan, detailing actions that minimise indoor air pollution during occupation of the building.	To be reviewed by BDP / Contractor.	BDP
Hea 03	Safe Containment in Laboratories	Undertake an objective risk assessment of proposed / existing lab facilities before design is complete AND ensure fume cupboards are specified in accordance with BREEAM requirements.	To be undertaken by Manchester College / BDP (M&E)	Manchester College / BDP (M&E)
Ene06*	Energy Efficient Transportation Systems	Carry out an analysis of the transportation demand and usage patterns for the building to determine the optimum number and size of transport systems.	To be reviewed by BDP / Contractor.	BDP
Wst06	Functional Adaptability	Complete a functional adaptation implementation plan report by RIBA Stage 4.	BDP / Reiach & Hall to complete.	Reiach & Hall
LE05	Long Term Impact on Biodiversity	Appoint a Suitably Qualified Ecologist before the commencement of site works to confirm adherence to all relevant EU and UK legislation and provide guidance for the contractor.	Reiach & Hall to ensure ecologist completes the GN13.	Reiach & Hall

**Denotes that stage is not a requirement of BREEAM but is latest recommended time for inclusion.*

8.0 Key Issues to Achieve BREEAM Very Good Certification

During the pre-assessment meetings, credits were identified which would enable the project to achieve a 'Very Good' rating (60.4%), with a margin of safety of 5.4%. In addition, potential credits were identified for further investigation. Appendix A provides detail on the specifications / actions targeted to achieve the above scores and assumptions made.

The tables within the following pages provide a brief summary of the issues targeted for the 'Very Good' rating, organised by discipline. These should be read in conjunction with Appendix A and the current BRE Manual which provides more detail on the requirements.

Issues for Client (The Manchester College) & Project Manager (Pearson Fraser)			
Ref	**Credit**	**Risk**	**Summary of Risk**
Man 01 Req 1-3	Stakeholder Consultation	Medium	Requires a Sustainability Brief to be developed at RIBA Stage 1. Also requires evidence confirming project team early collaboration and evidence to demonstrate that changes have been made to the design as a result of this collaboration.
Man 02	Elemental Life Cycle Costing	High	Carry out an Elemental Life Cycle Plan at RIBA Stage 2 to include options appraisal, servicing strategy and fit-out strategy.
Man 02 Req 6	Capital cost reporting	Low	Requires provision of project capital cost to Assessor for reporting to BRE.
Man 01 Req 8-10	Sustainability Champion (Design)	Medium	Agree a BREEAM target with the design team before the end of Stage 2.
Man 03 Req 4-6	Sustainability Champion (Construction)	Low	Requires the BREEAM target to be included in the main contractor's contract.
Man 05 Req 4-5	Post-Occupancy Evaluation	Medium	Requires an independent third party to undertake a Post Occupancy Evaluation one year after occupation.
Man 05 Req 6	Aftercare - Exemplary Level	Medium	Requires quarterly collection of energy and water consumption and occupant satisfaction data over the first 3 years of occupation for analysis, plus feedback to the design team and provision of data to the BRE.
Tra 01	Sustainable Transport Solutions	Medium	Provide at least two alternative transport measures (e.g. car sharing priority spaces, electric charging points, digital public transport information point).
Tra 05	Travel Plan	Low	Requires existing Travel Plan to be updated. In addition, requires commitment to adopt travel plan measures.
Wst 01	Pre-Refurbishment Audit	High	Requires a pre-refurbishment audit to be carried out by a competent person during Stage 2 and prior to strip-out.
Wst 03	Operational Waste	Medium	Requires provision of adequate space for storage of recycling as well as provision for composting / food waste collection.

Issues for Architect – Reiach & Hall			
Ref	**Credit**	**Risk**	**Summary of Risk**
Hea02	VOC Emission Levels	High	Requires careful specification of finishing materials, such as paints, floor finishes and ceilings to ensure that products with low VOC are used.
Hea 05	Acoustic Performance	Medium	Ensure that the new build extension meets BB93 performance standards in relation to sound indoor ambient noise level.
Hea 06 Req 11-13	Security of Site and Building	High	Requires appointment of a SQSS at RIBA Stage 2 to undertake a Security Needs Assessment plus implementation of SQSS recommendations.
Tra 01	Sustainable Transport Solutions	Medium	Provide at least two alternative transport measures (e.g. car sharing priority spaces, electric charging points, digital public transport information point).
Tra 03	Cyclist Storage	High	Requires BREEAM compliant cycle spaces for staff plus students using this facility- could be assessed on a campus wide or building specific basis.
Tra 03	Cyclist Facilities	High	Requires provision of two of the following facilities: showers, lockers, changing facilities and drying room.
Wat 01	Water Consumption	Medium	Requires careful sanitaryware specification in order to demonstrate a 40% reduction in water consumption over baseline levels.
Wat 04	Water Efficient Equipment	Low	Requires compliant method for irrigation or specification of plants which will not need irrigation.
Mat 01	Life cycle impacts	High	Requires production of a Life Cycle Assessment Study for the refurbishment, comparing the Green Guide ratings of certain. Plus, for the new extension(s), requires specification of A+ / A rated materials where possible for key building AND provision of a detailed breakdown of materials and measurement of areas.
Mat 04	Insulation	Medium	Requires specification of A+ / A rated insulation materials.
Mat05	Designing for Durability and Resilience	High	Requires inclusion of protection measures for vulnerable areas of the building (including within the refurbishment area), plus a report to show how material degradation from environmental factors has been addressed.
Wst 03	Operational Waste	Medium	Requires provision of adequate space for storage of recycling as well as provision for composting / food waste collection.
Wst 05	Adaptation to Climate Change	Medium	Requires study at Stage 2 into resilience of fabric and structure under future climate change conditions and futureproofing for these impacts if possible.
Wst 06	Functional Adaptability	Medium	Requires study at Stage 2 into adaptability of building for future extension and change of use and futureproofing for these if possible, plus review and implementation at Stage 4.
LE01	Previously Developed Land	Medium	Requires evidence to be provided to confirm that at least 75% of the new extension work's footprint (including building, hard landscaping and temporary works) is on previously developed land.
LE03	Change in Ecological Value	Medium	Requires planting in accordance with ecologist's advice to ensure that the loss in ecological value on site is no greater than -9 species.

Issues for Architect – Reiach & Hall			
Ref	**Credit**	**Risk**	**Summary of Risk**
LE04	Enhancing Ecology	Medium	Requires incorporation of ecologist's recommendations for enhancement.

Issues for M&E – BDP / M&E Sub-Contractor			
Ref	**Credit**	**Risk**	**Summary of Risk**
Man 04 Req 1-6	Commissioning	Medium	Requires commissioning schedule to be produced and a Commissioning Monitor to be appointed to ensure all systems planned and commissioned appropriately. In addition, appointment for a specialist commissioning manager for any complex systems.
Man 05 Req 3	Seasonal Commissioning	Medium	Requires seasonal commissioning to be undertaken over the first 12 months of occupation, taking place under full and part load conditions and during periods of extreme (high or low) occupancy.
Hea 01 Req 7-11	Internal & External Lighting Levels	High	Requires SLL & CIBSE compliant lighting design, and BREEAM compliant control & zones (manual switching required) within the new extension areas.
Hea 02 Req 1	Indoor Air Quality	Medium	Requires production of an Indoor Air Quality Plan covering both refurbishment and new extension areas.
Hea 03	Safe Containment in Laboratories	Medium	Undertake an objective risk assessment of proposed / existing lab facilities before design is complete AND ensure fume cupboards are specified in accordance with BREEAM requirements.
Hea 04 Req 1-4	Thermal Modelling	Medium	Requires dynamic thermal modelling to be carried out for the new extension(s) in accordance with CIBSE AM11, demonstrating that building is designed to limit the risk of overheating in accordance with CIBSE TM52.
Hea 04 Req 9-11	Thermal Zoning & Controls	Medium	Requires the thermal model to inform a temperature control strategy for the new extension(s) addressing the issues detailed within the BREEAM guidance.
Ene 01	Energy Performance	High	Requires an Energy Performance Ratio for the new extension(s) of 0.30 or greater. This is likely to require PV cells on the roof.
Ene 02	Sub Metering	High	Require provision of sub-meters connected to a BEMS or AMR system to cover at least 90% of the energy consumption of each fuel type by end use in the new extension areas.
Ene 03	External Lighting	Medium	Requires all external lighting associated with the new extension to be controlled via time clock/daylight sensor and have less than 60 lamp lumens per circuit watt plus PIRs to areas with intermittent pedestrian use.
Ene 04 Req 7-8	LZC Feasibility Study	High	Requires a production of an 'LZC Feasibility Study' during Stage 2 & demonstration of 5% reduction in CO2 as a result of LZC inclusion (e.g. PVs).
Ene 06	Energy Efficient Transport Systems	Medium - High	Requires a transport analysis & lift comparison for any new lifts provided within the extension (this could be done by the lift supplier but needs to be included within the specification). The specified lift also needs to incorporate

Issues for M&E – BDP / M&E Sub-Contractor			
Ref	**Credit**	**Risk**	**Summary of Risk**
			a number of energy efficient features, including a regenerative drive (unless it can be proven with calculations that this will not save energy).
Wat 01	Water Consumption	High	Requires careful sanitaryware specification in order to demonstrate a 40% reduction in water consumption over baseline levels.
Wat 02	Water Monitoring	High	Requires a pulsed meter to the water supply of the building and to any areas using >10% of water consumption
Wat 03 Req 1	Leak Detection System	Medium	Requires a BREEAM compliant water leak detection system to the new extension areas.
Wat 03 Req 2	Flow Control Devices	High	Requires PIR on toilet areas within both the refurbishment and new extension(s) to be connected to solenoid value to enable sanitary supply shut-off.
Mat 04	Insulation	Medium	Requires specification of A+ / A rated building services insulation materials.
Wst 06	Functional Adaptability	Medium	Requires input into a study into adaptability of building for future extension and change of use and futureproofing for these if possible
Pol 04	Reduction of Night-time Light Pollution	Medium	Requires that all external areas associated with the new extension are designed in accordance with ILP guidance notes.
Pol 05	Reduction of Noise Pollution	Low	Requires plant within the new extension to be specified appropriately to ensure that the noise from the building is no greater than +5dB during the day and +3dB at night compared to the background noise level.

Issues for Structural & Civil Engineers - BDP			
Ref	**Credit**	**Risk**	**Summary of Risk**
Wst 05	Adaptation to Climate Change	Medium	Requires input into a study into resilience of fabric and structure under future climate change conditions and futureproofing for these impacts if possible
Wst 06	Functional Adaptability	Medium	Requires input into a study into adaptability of building for future extension and change of use and futureproofing for these if possible
LE01	Contaminated land	Medium	Requires report confirming that contamination remediation is required to enable development.

Issues for Acoustician			
Ref	**Credit**	**Risk**	**Summary of Risk**
Hea 05	Acoustic Performance	Medium	Ensure that the new build extension meets BB93 performance standards in relation to sound indoor ambient noise level AND undertake pre-completion testing.
Pol 05	Reduction of Noise Pollution	Low	Requires plant within the new extension to be specified appropriately to ensure that the noise from the building is no greater than +5dB during the day and +3dB at night compared to the background noise level.

Issues for Ecologist			
Ref	**Credit**	**Risk**	**Summary of Risk**
LE02 – LE05	Change in Ecological Value	Medium	Requires completion of the GN13, including calculation of the change in ecological value, provision of recommendations for enhancement AND production of a 5-year landscape and habitat management plan

Issues for Main Contractor			
Ref	**Credit**	**Risk**	**Summary of Risk**
Man 03 Req 1 & Mat 03 Req 1	Responsible Construction Practices / Responsible Sourcing – Pre-requisite	Low	All timber needs to be legally & responsibly sourced i.e. FSC or PEFC.
Man 03 Req 2-3	Environmental Management	Low	Requires the main contractor to have ISO 14001 & operate within the PPG6 guidance recommendations.
Man 03 Req 7	Responsible Construction Practices – Considerate Construction	Medium	Requires a Considerate Constructors Scheme score of 35 or above and a min section score of 7 to be achieved in the final site monitor's report
Man 03 Req 8-17	Monitoring of Construction Site Impacts	Low - Medium	Requires the monitoring of water, energy use and transport data on-site against a site target.
Man 04 Req 1-3	Commissioning	Medium	Requires contractor to allow sufficient time for commissioning.
Man 04 Req 7-9	Testing & inspection of Building fabric	High	Requires airtightness and thermographic testing and remediation of any defects.
Man 04 Req 10-11	Handover	Low	Requires production of simple building user guide & training for the relevant building users.
Man 05 Req 1-2	Aftercare Support	Medium	Requires facilities management training and aftercare support for the first 12 months from occupation.
Hea 02 Req 1	Indoor Air Quality	Medium	Requires input into an Indoor Air Quality Plan.
Hea 02 Req 6-7	VOC Emission Levels (Products)	Medium	Requires careful specification of finishing materials, such as paints, floor finishes and ceilings to ensure that products with low VOC are used.

Issues for Main Contractor			
Ref	**Credit**	**Risk**	**Summary of Risk**
Ene 06	Energy Efficient Transport Systems	Medium-High	Requires a transport analysis & lift comparison. The specified lift also need to incorporate a number of energy efficient features, including a regenerative drive (unless it can be proven with calculations that this will not save energy).
Mat 03 Req 3	Sustainable Procurement Plan	Medium	Materials are sourced in accordance with a documented BREEAM compliant Sustainable Procurement Plan.
Mat 03 Req 4	Responsible Sourcing	Medium	Requires sourcing of materials within major elements from suppliers with appropriate certification (e.g. BES6001 / ISO14001 / FSC / CSA / MTCC / PEFC / SFI etc.).
Mat 04	Insulation	Medium	Requires specification of A+ / A rated building services insulation materials.
Wst 01	Construction Site Waste Management	Low - High	A resource management plan (formerly SWMP) needs to be produced to include waste produced both on & off-site and a maximum of 7.11 tonnes or 12.25m3 of waste to be produced per 100m2. Also requires 77% by volume (85% by weight) of non-hazardous construction waste and 85% by volume (92% by weight) of demolition waste to be diverted from landfill.
LE02	Protection of Ecological Features	Medium	Requires adequate protection of all ecological features within the construction zone.
LE04	Enhancing Ecology	Medium	Requires incorporation of ecologist's recommendations for enhancement.
LE05	Long term impact on Biodiversity	Medium	Requires various actions such as appointment of Biodiversity Champion, maintaining biodiversity records, timing works appropriately and biodiversity training.
Pol 05	Reduction of Noise Pollution	Low	Requires acoustician appointed to provide noise impact assessment based on actual plant installed.
LE05	Long Term Impact on Biodiversity	Medium	Requires appointment of a suitably qualified ecologist before the commencement of site works to confirm adherence to all relevant EU and UK legislation and provide guidance for the contractor.

9.0 Possible Additional Credits

During the pre-assessment meeting, possible additional credits were identified which require further checking / review by the design team before they can be targeted.

Ref	Credit	Action Required	Responsibility
Man 02 Req 3-4	Component Level LCC Plan	Develop a component level LCC plan in line with PD 156865:2008, prior to the end of **RIBA Stage 4**. This needs to include: envelope, services, finishes & External hard landscaping & boundary protection.	Pearson Fraser
Hea 04 Req 5-8	Adaptability- for a Projected Climate Change Scenario	Undertake thermal modelling to demonstrate compliance when run for a projected climate change environment. Where thermal comfort criteria are not met, demonstrate how the building can be easily adapted in future using passive design solutions in order to meet the requirements.	BDP (M&E)
Pol 01	Impact of Refrigerants	Check whether refrigerants specified will have Direct Effect Life Cycle CO2 equivalent emissions (DELC CO2e) of <1000 kgCO2e/kW cooling/heating capacity.	BDP (M&E)
Pol 03	Surface water run-off	Review the RFO 2014 requirements for neutral impact on surface water and reducing run-off.	BD (C&S)
Man 03	Responsible Construction Practices	Requires contractor to achieve Considerate Constructors Scheme score of 40 or more.	Contractor

10.0 Summary & Recommendations

The required measures for achieving BREEAM Very Good this are set out within Appendix A further to a review by the team.

All BREEAM requirements should, where possible be incorporated into the relevant contractual, sub-contractual and specification documentation. Ideally the information should be submitted for certification as early as possible. Certification can be achieved once evidence into credit achievement has been incorporated into the contract documentation. This can be done using drawings, specifications, contract preliminaries etc.

Please also be aware that the required mandatory credits / pre-requisites must be achieved to receive BREEAM certification, as highlighted within Appendix A.

It is recommended that:

- The project seeks to achieve Good or Very Good BREEAM Certification;
- The list in Section 7.0 of studies which must be completed during specified RIBA stages or before the design is complete is reviewed and Stage 3 studies started ASAP.
- Relevant BREEAM specific clauses/facilities should be added to the tender documents.

Appendix A – BREEAM Pre-Assessment Spreadsheet