

Golden Jubilee – Project 2 BREEAM Assessment Summary Report – April 2019



RECENT ACTIVITY

- A project team BREEAM workshop was held on-site on the 14th August 2019
- The desktop BREEAM NC 2018 pre-assessment was reviewed on a credit by credit basis.
- This report summarises the discussion and potential outturn target score.
- BREEAM Tracker **V01** has been issued to the team for review
- The potential score sits at **56.64% Very Good**
- The assessor has requested that BREEAM evidence folders, defined per credit, are set up on Viewpoint.

BREEAM Credit Discussion

Man 01 – Criteria 1-3 Stakeholder Project Delivery

Credit Anticipated. Kier have confirmed that a copy of the Project Execution Plan will be issued to demonstrate compliance with relevant credit criteria.

Man 01 – Criteria 4-7 Third Party Stakeholder Consultation

Credits have been targeted on the basis of dialogue with key stakeholders during the initial feasibility stages of the project.

Man 02 Life Cycle Cost and Service Life Planning

It was noted that, due to the length of programme, elemental life cycle costing and component level life cycle costing studies could not be undertaken in time to have any meaningful impact to the design process and as such have not been commissioned.

Man 03 – Responsible Construction Practices

Credits have been targeted on the basis that Keir operate a compliant EMS and that the Considerate Constructor Scheme will be used. Credits are based on a target CCS score of 35 to 39, with a score of at least 7 in each of the five sections.

Potential exists to score 40, however it has been noted that this is largely due to CCS assessor interpretation of the site and cannot be guaranteed.

Kier have confirmed that they will allow for monitoring of site activities (energy, water and transportation CO₂ monitoring)

Man 04 – Commissioning and Handover

Kier have confirmed that a thermographic image test has been included for in the overall commissioning programme.

It was confirmed that the thermographic image test will focus on representative areas of the facade to determine the consistency of building insulation.

Man 05 - Aftercare

It was discussed that an appropriate level of aftercare support will be provided to facilitate soft landing, train and support new building users and to undertake seasonal re-commissioning as necessary during the first 12 months of operation.

Hea 01 – Visual Comfort – Criteria 1-2 Glare Control

The credit has been targeted on the basis that user operated blinds will be installed in relevant building areas. It was noted that, given the nature of the facility, there are relatively few areas where glare control will be required.

It was discussed that drawings detailing the location of blinds and a copy of the blind specification would be sufficient evidence to support the credit.

Hea 01 – Visual Comfort Criteria 7-11 –Internal and External Lighting

TUV SUD have confirmed that the design aligns with the relevant standards quoted in the credit criteria and have confirmed that drawings and specifications will be issued to evidence the credit.

Hea 02 – Indoor air Quality

It was confirmed, given the density and location of AHU plant, that the AHU inlet / outlet separation distances required (10m inlet to outlet) will not be met.

It was agreed that due to the materials being specified for healthcare cleaning purposes (vinyl flooring and associated adhesives) that VOC emission criteria would not be met, and that post construction air quality monitoring would not be undertaken.

Natural Ventilation credit cannot be achieved, due to SHTM requirements for mechanical ventilation.

Hea 04 – Thermal Comfort

Credits have been targeted on the basis that detailed thermal modelling will be undertaken for the building, for both current and future weather files (future weather files for 2050s for free running areas and 2030s for mechanically ventilated areas)

TUV SUD to issue copies of thermal modelling reports and a covering statement confirming how the model was used to inform the design of the building heating system, in particular thermal zoning.

Hea 05 - Acoustic Performance

It was confirmed that the acoustician will undertake a design review of current proposals and will produce reports on the building performance relative to HTM 08-01. A copy of the report will be issued for review. Three credits have been targeted under Hea 05.

Hea 06 - Safety and Security

Credits for safe access by cycle paths and pedestrian walkways have been discounted, as the existing site would not meet the minimum credit requirements.

It was noted that there has been no involvement with an ALO as the scheme is not intending to achieve 'Secured by Design'. However it was noted that a local ALO will be approached and that security will be reviewed as part of the NDAP process.

Ene 01 – Energy Performance and Ene 04 Low Carbon Design

It was discussed that due to the building constituting an extension under Section 6 and the intention to connect to existing heating system that the building is unlikely to score any credits under Ene 01 as a Section 6 TER/BER pass is unlikely.

It was discussed that under BREEAM 2018 credits are available to projects which evaluate operational energy performance at the design stage via dynamic simulation modelling. Project team to discuss the value of such an exercise and confirm if works will be undertaken.

Ene 02 – Energy Sub-Metering (field)

Credits have been targeted assuming that major energy supplies to the new building will be metered. This will include heat meters to plate heat exchangers, electrical meters to lighting and small power distribution boards and MCP, integral meters in pump and AHU fan motor VSDs.

It was discussed that the building will not be sub-metered on a departmental basis.

Ene 04 - Low Carbon Design

It was noted that, due to the length of programme, passive energy design comparison study could not be undertaken in time to have any meaningful impact to the design process and as such has not been commissioned.

It was noted that, due to the building not being subject to Section 6.1 and due to the intent to connect to the existing building heating system no LZCT study has been commissioned.

Ene 08 – Energy Efficient Equipment

Credits have not been targeted at this stage. The credit score is related to NHS equipment procurement strategy, in particular how small scale office equipment will be procured.

Tra 01 Transport Assessment and Travel Plan

It is understood that a transport and travel plan has been created for dialogue with planners.

Tra 02 Sustainable Transport Measures

It was discussed that the site will incorporate a number of sustainable transport options including proposed site wide cycle storage, additional pedestrian routes through the site, electric vehicle charging points and good local public transport links.

Wat 01 – Water Consumption

It was discussed that sanitary fitting will not be specified on a water consumption basis, but on a performance basis. Given the nature of the facilities low flow fittings / low flush WCs will not be specified in all areas.

The project team have been requested to provide technical literature / specification for all water consuming sanitary fittings and to confirm the BCWS working pressure.

Wat 02 Water Monitoring

Credits targeted assuming that the new water supply (BCWS) will be fitted with a pulsed out-put water meter.

TUV SUD have confirmed that the water supply to the new extension is fitted with a pulsed out-put water meter.

Wat 03 – Water Leak Detection

TUV SUD have confirmed that a water leak detection system will not be installed and have confirmed that the design will include for solenoid valves within the public WC areas.

Mat 01 – Life Cycle Impacts

It was discussed that credit performance is based on the relative life cycle performance for each major construction elements. Life cycle performance will be calculated using the BRE simple LCA tool.

A template has been issued to assist with data collection.

Mat 02 – Environmental Impacts from Construction Products

It was discussed that the credit is unlikely due to uncertainty regarding chain of custody of EPD certificates from suppliers. The credit has been discounted on that basis.

Mat 03 – Responsible Sourcing of Materials

Kier have confirmed that they operate to the guidance of a corporate level sustainable procurement plan, however a site specific plan will not be prepared. As such responsible sourcing of materials credits have been discounted at this stage.

Mat 05 – Designing for Durability and Resilience

Credits have been targeted on the basis that appropriate durability and protection measures will be incorporated into the design.

The project team are required to provide a summary statement and supporting drawings detailing the various durability and resilience measures incorporated.

Mat 06 – Material Efficiency

The material efficiency credit has been targeted on the basis that the building will incorporate a high degree of off-site prefabrication that will minimise waste. It was noted that the building will incorporate;

- M&E service modules
- Packaged plant
- Pre-cast concrete structure

Wst 01 - Construction Waste Management

Credits have been targeted on the basis that Kier operate a compliant SWMP and will aim to minimise waste generation and divert significant quantities of waste from landfill.

Kier have been requested to issue a copy of the current SWMP for review.

Wst 03 - Operational Waste

Compliance requires provision of compliant facilities and NHS commitment to adhere to SHTN 3.

Credits have been targeted on the basis that existing waste processing facilities are compliant with SHTN 3

Le 01 – Site Selection

It has been noted that the site has had prior industrial use as an asbestos factory. The project team are to confirm this with before / after drawings detailing the location of buildings / roads / rail etc. relative to the foot print of the new extension.

Land Use and Ecology – All Credits

It was raised that the BREEAM ecology section under 2018 requires greater engagement and collaboration between the ecologist and the project team.

A focused workshop, involving relevant stakeholders, to discuss the following should be programmed;

- Current ecological value of the site
- Direct and in-direct risks to site ecology
- Capacity and feasibility for enhancement of ecology
- Planning and managing negative impacts to ecology during construction
- Defining roles and responsibilities in protecting and enhancing site ecology
- Compliance with UK / EU legislation
- Long term management and maintenance of landscape / ecological features

Pol 01 – Impact of Refrigerants

It was noted that Project 2 will not incorporate any significant refrigerant based heating / cooling systems. Credits have been targeted on this basis.

Pol 02 NOx Emissions

It was noted that nox emissions associated with heating and DHW to Project 2 will be determined by existing central boiler plant. Credits have been targeted on the basis that NHS will be able to provide the relevant data regarding gas burner dry nox emissions.

Pol 03 – Surface Water Run-Off

The site has been subject to a flood risk assessment. It has been requested that the report is issued with a short BREEAM specific summary that confirms which of the credit criteria are achieved based on the level of analysis undertaken.

Pol 05 – Reduction of Noise Pollution

The credit has been targeted assuming that post development acoustic levels will not exceed current levels, and that the Acoustician will review plant proposals and advise on required attenuation measures.

BREEAM PROGRESS

Hulley & Kirkwood have developed a bespoke BREEAM tracker document. This document provides a more intuitive mechanism to evaluate, monitor and predict the BREEAM scoring.

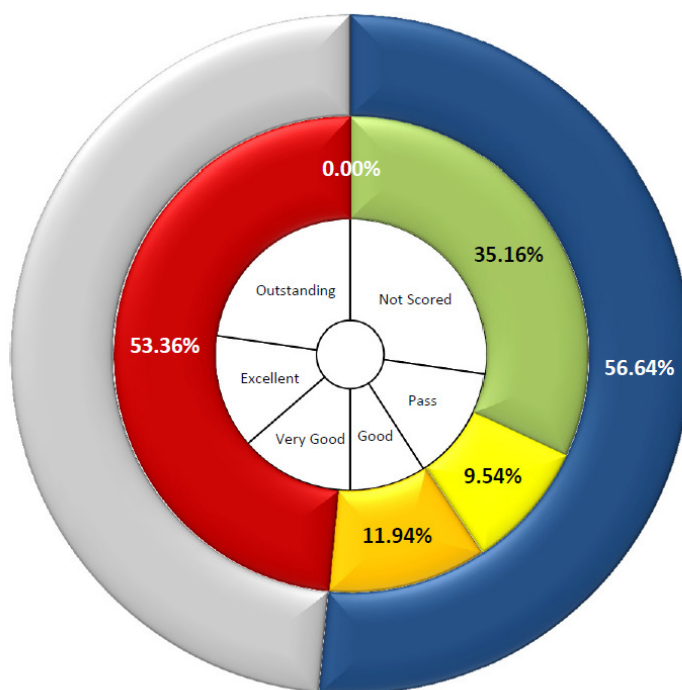
The tracker allows credit headings to be allocated to appropriate members of the design team and allows credits to be categorised in terms of risk, cost, value and difficulty.

Credits within the checklist have been broken down into four distinct risk categories:

- **Anticipated Credits** – Low risk, best value BREEAM Credits which form the basis of best practice design and which benefit the overall design with limited additional cost
- **Target A Potential Credits** - Medium risk, technically challenging credits above best practice design which have implications on project cost, procurement strategy and site space requirements
- **Target B Potential Credits** - These credits have high associated risk, due to uncertainty about aspects which are to be assessed or likely to be out of the control of the design team. These credits cannot be guaranteed
- **Unlikely credits** - credits which are deemed unobtainable/unlikely due to the nature of the site, the nature of the building operation or due to the project scope

The tracker wheel provides a visualization of potential credit scoring and prediction of overall BREEAM rating. It can also be used to show progress with collation of required evidence against to achieve scoring.

***Please refer to the accompanying H&K BREEAM Tracker V01 for a full breakdown of the assessment.**



Credit Type		Potential BREEAM 2014 Score
Anticipated Credits	35.16	35.16
Potential Target A	9.54	9.54
Potential Target B	11.94	11.94
Unlikely credits	536.36	536.36
Maximum Potential Score	56.64	56.64
	Very Good	Very Good

CRITICAL ACTIVITIES

- Project Team to populate Viewpoint folders with supporting credit information.