

Sustainability Assessment Technical Note

Project Title	Royal Berkshire Archives Extension		
Subject	Sustainability Assessment Technical Note	Date	28/05/2025
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1 Introduction

Method Consulting have been appointed by West Berkshire Council to provide an alternative sustainability assessment addressing the requirements of Policy CC2 for the proposed extension to the Berkshire Record Office at 9 Coley Avenue, Reading, RG1 6AF. The scope of works includes a two-storey extension (and associated rooftop plant room) to the existing building to provide additional storage capacity with two large strong rooms and general storage, whilst providing a link to the existing Record Office.

This technical note explains the alternative sustainability assessment that has been produced, and summarises the sustainable design and construction measures that have both been included in the development's design, and will be expected to be demonstrated by the appointed Contractor on site.



Figure 1: Proposed External Finishes and Furniture Layout ("6140-P-25" – Quattro Design Architects)

2 Context

Reading Borough Council planning policy (Policy CC2: Sustainable Design and Construction) requires all major non-residential developments to achieve a BREEAM rating of 'Excellent'. For this development, the Council stipulated that a BREEAM rating of 'Good' was required.

A BREEAM pre-assessment workshop was carried out to devise an initial BREEAM strategy to achieve the 'Good' rating. However, it was identified that a BREEAM assessment would not be suitable for the proposed development as per the following guidance from the BRE:

"BREEAM has been developed to assess the environmental performance of buildings that are designed, in whole or in part, for human occupation. Buildings that comprise only unoccupied spaces, such as multi-storey car parks, storage facilities and changing/WC blocks, which have no spaces occupied continuously for more than 30 mins, cannot undergo a stand-alone BREEAM assessment"

Due to the nature of the proposed extension as an unoccupied storage facility, Method Consulting submitted a query to the BRE to confirm whether the development could be assessed and certified under BREEAM. The response confirmed that the development would not meet the minimum eligibility criteria to be assessed under BREEAM, also highlighting that it would not be easy to achieve a fair or meaningful rating as several credits rely on the presence of occupied spaces.

Following this response, which was forwarded to Reading Borough Council, it was confirmed that the following alternative option could be pursued instead:

"An alternative sustainability assessment addressing the requirements of Policy CC2 and the need to preserve the character of the building including appropriate assessment criteria has been submitted to and approved in writing by the Local Planning Authority."

This option has been taken forward, and the following section summarises the results of the alternative sustainability assessment that has been produced.

3 Alternative Sustainability Assessment

A bespoke sustainability assessment has been produced for this development. The assessment is based on the BREEAM categories and requirements, and the sustainable design and construction measures to be incorporated have been based on discussions held with the design team and the latest design drawings. The sections below summarise how the relevant sustainability principles for each of the categories have been addressed in the building's design, and/or will be demonstrated by the appointed Contractor. These measures also address the key aims presented in Reading Borough Council's

Sustainable Design Checklist for Non-Residential Development. For the full assessment, please refer to document “2494IRB-MET-XX-XX-L-O-9803-S3-P01_Sustainability Measures”.

3.1 Management

The development site will be managed in an environmentally and socially considerate manner through the following measures:

- Continued consultation with the building user.
- Consideration of construction site impacts by the Contractor by monitoring resource consumption, signing up to the Considerate Constructors Scheme (CCS) and implementing best practice pollution prevention policies in line with PPG6.
- Provision of guidance to the technical and non-technical building user in the form of building user guides and training schedules.
- Commissioning and testing of the installed M&E systems followed by aftercare provision and continued resource consumption monitoring during occupation.

3.2 Health and Wellbeing

As the extension will be unoccupied, health and wellbeing of occupants is less of a concern. However, the following measures will be incorporated:

- Internal and external lighting providing adequate illuminance levels.
- Internal lighting having manual controls and appropriate zoning.
- A high standard of air quality through the use of low-VOC finishes and a mechanical ventilation system.
- Safety and security measures including CCTV cameras and access control.
- Presence of an outdoor amenity space for occupant use.

3.3 Energy

Energy will be conserved and energy efficient techniques will be implemented in the design as follows:

- The development meets Part L requirements (BER<TER) and is expected to achieve an EPC rating of A.
- Sub-metering will be installed for lighting and power.
- There will be PIR sensors for internal lighting, and external lighting will be controlled by photocell/timeclock with automatic dimming to lower light levels.
- Rooftop PV array supplying clean electricity.

- Thermally insulated supply and extract ductwork.
- No unregulated energy consuming systems.

3.4 Transport

The need to travel via car is reduced due to the site's proximity to public bus stops serving different routes and the proximity to nearby amenities. The site has covered external cycle storage facilities for visitor and staff use.

3.5 Water

The new extension does not include any water consuming systems, and will not result in an increased use of existing sanitary facilities in the adjacent building. Any irrigation requirements for outdoor planting will be met solely by precipitation.

3.6 Materials

The use of sustainable materials with a low environmental impact will be prioritised through the following:

- Procuring and utilising products with Environmental Product Declarations (EPDs) and responsible sourcing certifications where possible.
- Ensuring all temporary and permanent site timber is FSC/PEFC certified.
- Ensuring the design is of durable construction to minimise maintenance requirements and premature replacement of materials, e.g. robust concrete frame, steel doors.

3.7 Waste

The production of waste will be minimised, and re-use and recycling of materials will be maximised, through the following measures:

- A pre-demolition audit will be conducted to assess the extent to which materials can be re-used, including the potential re-use of the existing steel staircase.
- The extension is not expected to generate an increase in operational waste and therefore the existing bin store can be used by building users.
- The contractor shall provide dedicated areas for the separation and collection of construction waste for recycling alongside clear signage and toolbox talks on-site.
- Construction waste shall be minimised as much as possible, with a target of no more than 13.3m³ / 11.1 tonnes of waste per 100m² of floor area, and at least 80% of this to be diverted from landfill.

3.8 Land Use and Ecology

Wildlife habitats and natural features are being protected as the development is occurring on existing hard landscaping and not undeveloped land. Whilst one tree is being felled, this is being compensated by the planting of two additional trees on the site boundary, and all other trees on the site are being retained. Overall, the ecology of the site is expected to be enhanced.

3.9 Pollution

The site is in Flood Zone 1 and is at a low risk of flooding. A site-specific drainage plan has been designed to include new storm drains and an underground attenuation system to minimise surface water run-off.

The development has been designed to minimise air, noise and light pollution as follows:

- No combustion systems to be present for heating and hot water, preventing NOx emissions.
- Low-GWP refrigerant (R-32) will be used for heating/cooling systems.
- External luminaires will comply with the Government's light pollution policy and automatically dim/switch off when not activated.
- Noise attenuators will be connected to the AHUs in the rooftop plant to minimise noise pollution.

4 Conclusion

Although a BREEAM assessment is not considered suitable for this unoccupied extension, the bespoke sustainability assessment has addressed the requirements of Policy CC2 by demonstrating compliance with the general principles and requirements of BREEAM where deemed appropriate. This includes the key sustainability issues presented in Reading Borough Council's Sustainable Design Checklist for Non-Residential Development. The measures are considered to be appropriate for a project of this type and scale.