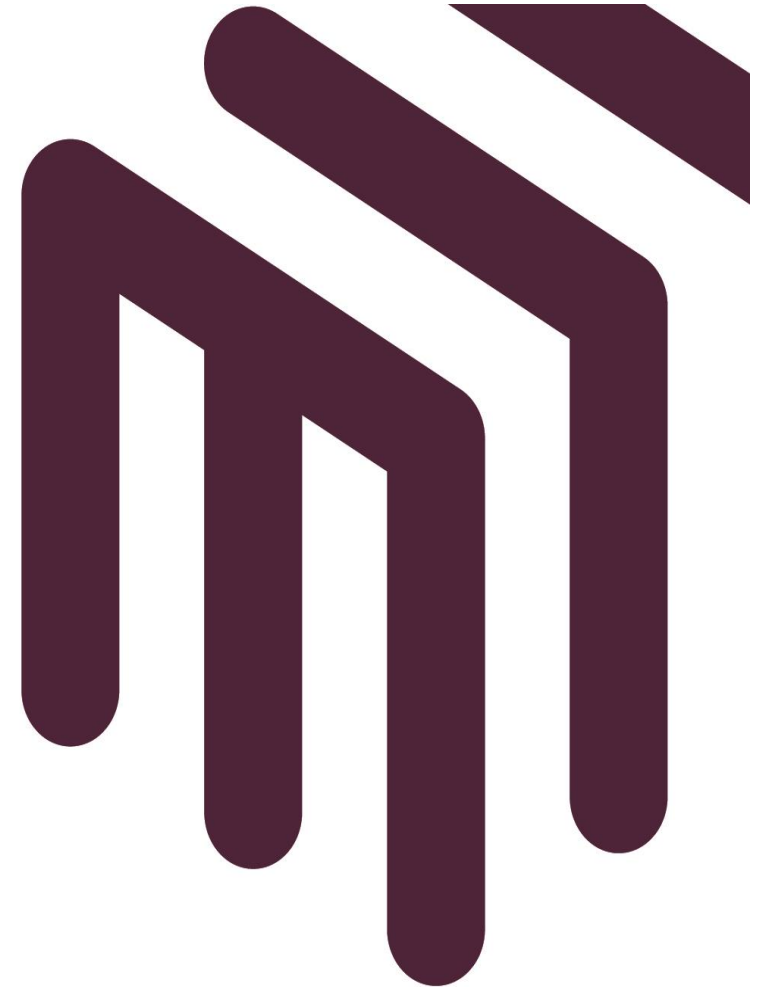


Royal Berkshire Archives Extension

Sustainability Measures Summary

P02, May 2025



Sustainability Measure (Linked to BREEAM)	Considered?	Key Sustainability Principles	Project Comments
MANAGEMENT			
Project brief and design		To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.	
Stakeholder Consultation	Yes	Consult with interested parties about different aspects of the design and enable stakeholder contributions and consultation outcomes to influence the Initial Project Brief and Concept Design. Give consultation feedback to stakeholders to close the loop.	The building user is the county archivist acting on behalf of the planning authority, and the project team confirmed that they have been involved regularly in project discussions. Due to the nature of the building, the building user is the most relevant stakeholder to include in discussions.
Involve a Sustainability Professional	Yes	The project team should liaise and collaborate with a sustainability professional during the design process to ensure that sustainable principles are being considered in the building's design.	Method Consulting have been appointed to provide sustainability support pre-planning and throughout the design process. A BREEAM Pre-Assessment workshop was conducted on 20th March with the Project Manager (MTP Consultants) and M&E Engineer (Proair Consultants) to agree a strategy on achieving a BREEAM 'Good' rating. However, BRE confirmed that this building could not be assessed under BREEAM as it does not include occupied spaces, therefore an alternative sustainability assessment has been carried out (set out in this document) to address the requirements of Policy CC2 and principles of BREEAM.
Responsible construction practices		To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	
Temporary Timber on Site	Yes	Ensure by writing into contracts that all timber and timber based products used during the construction process of the project must be legal and sustainable timber (e.g. FSC or PEFC certified). This applies to timber such as hoardings, formwork etc.	The project team confirmed that this will be pursued. The Contractor will be expected to comply and this will be included in the contract as a requirement.
Environmental Management	Yes	All parties who at any stage manage the construction site (e.g. the principal contractor, the demolition contractor) operate an Environmental Management System (EMS) covering their main operations. This is typically ISO 14001 certification. The same parties demonstrate via evidence that they have implemented best practice pollution prevention policies and procedures on site in accordance with PPG 6.	The project team confirmed that this will be pursued. The Contractor will be expected to comply and this will be included in the contract as a requirement.
Responsible Construction Management	Yes	Achieve a Considerate Constructor's Scheme (CCS) score of at least 39.	The project team confirmed that this will be pursued. The Contractor will be expected to comply by signing up to CCS and receiving a monitoring report of site activities. This will be included in the contract as a requirement.
Monitoring of Construction Site Impacts (Utility Consumption and Transport)	Yes	Assign responsibility for monitoring all data on site to a competent individual. Set targets, monitor and record data for the site energy consumption in kWh (where relevant, litres of fuel) and potable water consumption (m3) as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation. Report the total CO ₂ emissions (total kgCO ₂ / project value). Set targets for transportation movements and impacts resulting from delivery of the majority of construction materials to site and construction waste from site. Using the collated data, report separately for materials and waste, the total transport-related carbon dioxide emissions (kgCO ₂ -eq), total distance travelled (km).	The project team confirmed that this will be pursued and construction site impacts will be given adequate consideration. The Contractor will be expected to comply and monitor and record data for energy and water consumption and transport movements during construction works. This will be included in the contract as a requirement.

Sustainability Measure (Linked to BREEAM)	Considered?	Key Sustainability Principles	Project Comments
Commissioning and handover		To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.	
Commissioning - Testing Schedule and Responsibilities	Yes	A schedule of commissioning and testing is prepared and includes a suitable timescale for commissioning and re-commissioning of all complex and non-complex building services and control systems and for testing and inspecting building fabric. All commissioning is carried out in accordance with current Building Regulations, BSRIA guidelines and CIBSE guidelines. An appropriate project team member is appointed to monitor and programme pre-commissioning, commissioning and, where necessary, re-commissioning on behalf of the client.	The project team confirmed that this will be pursued. Careful commissioning will be required to the correct standards, with a project team member involved in monitoring the commissioning. Drawings provided by the M&E Consultant (Proair) note that the following minimum commissioning/testing of services will need to occur: - Full 3-hour test of emergency lighting installation required to ensure compliance with BS5266 and BSEN1838. - Cp electronics to commission the lighting installation on completion of the project and hand over a lighting programme with the installation along with training and instructions. - Contractor to carry out electrical phase balancing exercise at the end of the new installation, this includes clamping the supply at various times of day. - Access control, security systems and other equipment to be installed fully tested and commissioned and fully certified with full demonstration to the engineer.
Commissioning - Design and Preparation	Yes	An appropriate project team member should be appointed during design stage with responsibility for: - Undertaking design reviews and advising on suitability for ease of commissioning. - Providing commissioning management input to construction programming and during installation stages. - Management of commissioning, performance testing and handover / post-handover stages.	The project team confirmed that this will be pursued. Contractor to ensure a suitable person is appointed to manage the overall commissioning process and carry out the design reviews.
Testing and Inspecting Building Fabric	Yes	The principle here is for post construction thermographic survey and airtightness testing and inspection to be completed to assure the quality of the building fabric, including insulation continuity, avoidance of thermal bridging and air leakage paths. Defects identified should be rectified prior to building handover. All testing must be carried out by a Suitably Qualified Professional, in line with the appropriate standard, such as Level 2 Thermographer.	The project team confirmed that this will be pursued. The requirement for air testing and a thermographic survey will be included in the contract as a requirement for the Contractor to include for.
Building User Guides	Yes	Two Building User Guides should be developed prior to handover covering all functions and uses of the building. One for the non technical user (distributed to building occupiers) and one for the technical user (premise facilities managers). Where relevant, the guides should include the following BREEAM content requirements: - Overview of the building and its environmental strategy, e.g. energy, water or waste efficiency policy or strategy, and how users should engage with and deliver the policy or strategy. - Provision of, and access to, shared facilities. - Safety and emergency information or instructions. - Building-related operational procedures specific to building type or operation. - Building-related incident reporting and feedback arrangements. - Provision of and access to transportation facilities, e.g. public transport, cyclist facilities, pedestrian routes etc. - Provision of and access to local amenities. - Links, references and relevant contact details. Additionally, for the non-technical building user guide for building occupiers: - Building services overview and access to building occupant controls, e.g. where to find them, what they control, how to operate effectively and efficiently etc. - Pre-arrival information for visitors, e.g. access and security procedures or provisions. Additionally, for the technical building user guide for facilities managers: - Building services overview and access to facilities management controls, e.g. where to find them, what they control, how to operate effectively and efficiently etc. - Refit, refurbishment and maintenance arrangements or considerations - Building related training information or links.	The project team confirmed that this will be pursued. Building User Guides will be developed by the Contractor prior to handover. This will help enable both the technical and non-technical users to understand how the systems in place work and have been designed to reduce the building's overall environmental impact, and how to operate the building efficiently.

Sustainability Measure (Linked to BREEAM)	Considered?	Key Sustainability Principles	Project Comments
Training Schedules	Yes	In addition to the above, the contractor should provide training to the technical user (i.e. premise facilities manager) two training schedules are developed for handover: One for the non technical user (distributed to building occupiers) and one for the technical user (premise facilities managers). The training content should follow the BREEAM guidelines: - The building's design intent. Additionally, for the building occupiers: - Introduction to the non-technical building user guide for building occupiers and other relevant building documentation. Additionally, for the facilities managers: - The available aftercare provision and aftercare team main contacts, including any scheduled commissioning and post occupancy evaluation. - Introduction to, and demonstration of, installed systems and key features, particularly building management systems, controls and their interfaces. - Introduction to the technical building user guide for facilities managers' and other relevant building documentation, e.g. design data, technical guides, maintenance strategy, operations and maintenance (O&M) manual, commissioning records, log book etc. - Maintenance requirements, including any maintenance contracts and regimes in place.	The project team confirmed that this will be pursued and that training schedules will be developed by the Contractor for handover. This will help to build on the above, and thorough training at handover is crucial for successful operation and occupant satisfaction.
Aftercare		To ensure the building operates in accordance with the design intent and operational demands, through providing aftercare to the building owner and occupants during the first year of occupation.	
Aftercare Support	Yes	The principal contractor should provide aftercare support to the building occupier, which includes a meeting, introducing available aftercare support, introduction to the building systems and walkabout of the building. There should be two levels of aftercare support; including on-site attendance for a month after handover and longer term support for at least the first 12 months. AND The client/building occupier should collect and monitor energy and water consumption data for a minimum of 12 months, once the building is occupied.	The project team confirmed that this will be pursued. To help ensure smooth handover and initial occupation, aftercare support will be provided by the Contractor and this will be included in the contract as a requirement. The client will also be responsible for monitoring energy and water consumption for the first 12 months after completion. This will help to analyse any discrepancies between actual and predicted performance and identify where measures may be needed to reduce consumption.
Commissioning - Implementation	Yes	During the first 12 months after handover: Complex systems: The specialist commissioning manager: - Identifies occupier changes that might have impaired or improved performance. - Test all building services under full load conditions (heating equipment in mid-winter, cooling and ventilation equipment in mid-summer and under part load conditions (spring and autumn). - Where applicable, carry out testing during periods of extreme (high/low) occupancy. - Interview building occupants to identify problems regarding the effectiveness of the systems - Produce monthly reports comparing sub-metered energy performance to the predicted - Identify inefficiencies and areas in need of improvement - Recommissioning of systems (following any work needed to serve revised loads), and incorporate any revisions in operating procedures into the O&M manuals. Simple systems (naturally ventilated): The external consultant, aftercare team or facilities manager: - Reviews thermal comfort, ventilation, and lighting, at three, six and nine month intervals after initial occupation. - Identifies deficiencies and areas in need of improvement. - Recommissions systems and incorporates any relevant revisions in operating procedures into the O&M manuals.	The project team confirmed that this will be pursued. Commissioning activities will be undertaken over 12 months after building occupation.

Sustainability Measure (Linked to BREEAM)	Considered?	Key Sustainability Principles	Project Comments
HEALTH & WELLBEING			
Visual comfort		To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.	
Control of glare from sunlight	N/A	The potential for glare should be designed out through building layout (e.g. low eaves) or building design (e.g. brise soleil, bioclimatic design or blinds) in all relevant building areas via a glare control strategy.	Due to the nature of the building as an unoccupied storage space, there are no relevant areas that need to meet the glare control requirements.
Daylighting	N/A	Calculations have been carried out which demonstrate that at least 80% of floor area in occupied spaces is adequately daylight.	Due to the storage of documents that are highly sensitive to changes in the surrounding environment, the building requires strictly controlled lighting conditions. The space is unoccupied so there are no health and wellbeing concerns regarding daylight.
View Out	N/A	The principle here is for workstations to be within 7-8m of a window with a view out. A window / opening area that is equal to, or greater than, 20% of the surrounding wall area would be considered an adequate view out for spaces with a room depth of less than 8m.	Due to the nature of the building as an unoccupied storage space, there are no relevant areas that need to meet the view out requirements.
Internal and External Lighting Levels, Zoning and Control	Yes	All internal and external lighting is designed to provide illuminance levels appropriate to tasks undertaken, recommended by SLL Code for Lighting 2012, BB90, CIBSE LG 7 or other relevant industry standard for internal lighting, and BS 5489-1:2013 and BS EN 12464-2:2014 for external lighting. Lighting must be appropriately zoned and allow for occupant control.	The project team confirmed that this will be pursued where relevant, considering the extension will be unoccupied. The latest lighting drawings state that all lighting circuits are to include controls to optimise the energy performance. The new lighting installations will be connected to PIR units for optimised performance, but will also have light switches for manual control. The M&E drawings show that there will be external luminaires, and that these will comply with the Government's light pollution policy reference E1 standard with downlighting only.
Indoor air quality		To encourage and support healthy internal environments with good indoor air quality.	
Emissions from Construction Products	Yes	Products should be specified to have low concentrations of Volatile Organic Compounds (VOCs) (e.g. formaldehyde E1 class) or an alternative IAQ certification scheme (e.g. EMICODE) where possible. Product types are: Interior paints and coatings; Wood-based products (including wood flooring); Flooring materials (including floor levelling compounds and resin flooring); Ceiling, wall, and acoustic and thermal insulation materials; Interior adhesives and sealants (including flooring adhesives).	The project team confirmed that they will be specifying low VOC wall, floor and ceiling paint which will help to contribute towards a high level of air quality within the extension. This will also be assisted by a mechanical ventilation system powered by two air handling units serving the space and supplying fresh air.
Security		To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site.	
Security of Site and Building	Yes	Best practice would be to involve a security consultant or the local DOCO to seek their advice regarding appropriate security measures and to then incorporate these into the design.	The project team confirmed that the main building has access control and the client has previously conducted a security review. The M&E drawings demonstrate that various security measures have been implemented within the design. These include the following: - 2no. new CCTV low light IP65 Colour cameras to be installed to monitor each entrance to the building and the plant space, including new spiral staircase. - A vandal resistant card reader to access the extension from the existing building. - An IP65 access control keypad to access the strong room. - A locked door to the rooftop plant room. The new security system will also be designed so that the cameras can be upgraded when necessary and new cameras can be added easily if required. The system will also be fully tested, commissioned and certified with a full demonstration to the engineer to ensure everything is working correctly.
Safe and healthy surroundings		To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users.	
Outside space	Yes	There is an outside space providing building users with an external amenity area. When determining the appropriate size of the outside space, the building type, function, shift patterns and occupancy numbers should be considered. The outside space should: a) be an outdoor landscaped area, for example a garden, balcony or terrace; the majority of the space should be open to the sky b) have appropriate seating areas and be non-smoking, c) be located to ensure it is accessible to all building users and avoids areas that will have disturbances from sources of noise (e.g. car parks, busy roads, delivery areas etc.).	The Architect's hard landscaping drawing shows that there will be an outdoor landscaped seating area with 4no. benches for staff and visitors. The project team confirmed that non-smoking signage around this area will be implemented as part of the proposed works for the new development.

Sustainability Measure (Linked to BREEAM)	Considered?	Key Sustainability Principles	Project Comments
ENERGY			
Reduction of energy use and carbon emissions		To minimise operational energy demand, primary energy consumption and CO ₂ emissions.	
Energy Performance	Yes	There is an improvement in the building operational related CO ₂ emissions compared to the Building Regulations notional building.	The project team confirmed that this will be pursued as the building has been designed to meet Part L requirements. A BRUKL completed by the M&E consultant (Proair) shows that the building CO ₂ emission rate is expected to be less than the target CO ₂ emissions rate (4.49 kgCO ₂ /m ² .annum vs. 4.72 kgCO ₂ /m ² .annum). This is also expected to achieve an EPC rating of A.
Energy monitoring		To encourage the installation of energy sub-metering to facilitate the monitoring of operational energy consumption. To enable managers and consultants post-handover to compare actual performance with targets in order to inform ongoing management and help in reducing the performance gap.	
Sub-metering of end-use categories	Yes	Energy metering systems are installed that enable 90% of the estimated annual energy consumption of each fuel to be assigned to the various end-use categories of energy consuming systems. This includes the following: space heating; domestic hot water; humidification; cooling; ventilation; pumps; lighting; small power; renewable or low carbon systems (separately); controls; and other major energy-consuming systems/plant (e.g. lifts, cold storage, pools, kitchen plant, drama studio rigs etc.). The energy consuming systems are metered using an appropriate energy monitoring and management system. The energy consuming end uses should be identifiable to the building user, for example through labelling or data outputs.	It was confirmed (20/02/25) by Proair Consultants that the sub-metering of end-use categories will be present. The M&E drawings note that there will be separate metering for power and lighting and this will be connected to a new BMS control panel which will be linked to the main building BMS for monitoring.
External lighting		To reduce energy consumption through the specification of energy efficient light fittings for external areas of the development.	
External Lighting	Yes	External light fittings should be energy efficient (defined in BREEAM as having an average luminaire efficacy greater than 70 lumens per circuit Watt). All external light fittings should be automatically controlled to prevent daytime operation (timeclock/photocell). The use of presence detection should also be considered in areas of intermittent pedestrian traffic.	The M&E drawings note that all external luminaires shall automatically dim to 10% ten minutes after the last activation at the front of the building and to 0% at the rear of the building. Energy efficiency has also been considered for the external car park lighting as the drawings note that this shall be photocell and timeclock controlled with lanterns on 100% when activated and 10% when not activated (during darkness only).
Low carbon design		To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	
Low and Zero Carbon Technologies	Yes	Local appropriate LZC energy technology/technologies is/are specified for the building/development.	LZCs are being installed for the new extension. The latest tender drawings show that the extension is expected to have a rooftop PV array of 16 1000x1700mm panels. Combined with the PV on the existing building, the development is expected to have a total of 48 PV panels supplying clean and renewable electricity.
Energy efficient equipment		To encourage installation of energy efficient equipment to ensure optimum performance and energy savings in operation.	
Energy Efficient Equipment	Yes	The principle here to try to reduce the energy related to equipment that is unregulated, i.e. is not assessed under Part L. E.g.: Fridges, fridge-freezers: A+ rating Washing machines: A++ rating Dishwashers: A+ rating	This will be achieved as there will be no systems present in the new extension that contribute to unregulated energy consumption. As shown on the floor plans, the extension only consists of lobby areas, storage areas, and a rooftop plant area.
TRANSPORT			
Sustainable transport measures		To maximise the potential for local public, private and active transport through provision of sustainable transport measures appropriate to the site.	
Travel Measures	Yes	Identify and implement sustainable public, private and active transport measures. Reduce the need to travel through appropriately located development.	The site is in close proximity to bus stops that serve a variety of local routes. There are existing covered cycle stands for staff and visitors to use. The site also has a WalkScore of 83, demonstrating the project's sustainable location and proximity to nearby amenities. There is a food outlet, ATM and outdoor space within a short walk of the site.

Sustainability Measure (Linked to BREEAM)	Considered?	Key Sustainability Principles	Project Comments
WATER			
Water consumption, monitoring and leak detection		To reduce the consumption of potable water for sanitary use in new buildings through the use of water efficient components, effective monitoring, and leak detection.	
Water consumption, monitoring and leak detection	N/A	Ensure that specified water consuming components utilise water efficiently with low flow rates. Ensure that areas consuming 10% or more of the buildings total water demand are fitted with easily accessible sub meters or have water monitoring equipment integral to the plant or area connected to the BMS. Install a permanent automated water leak detection system capable of alerting occupants to a leak or an in-built automated diagnostic procedure for detecting leaks. Install flow control devices such as solenoid valves linked to PIR sensors on the cold water supply to WC areas.	This sustainability measure is not applicable to the new building as it has been designed to not contain any sanitary areas.
Wat 04 Water efficient equipment		To reduce water consumption for uses not assessed under Wat 01 by encouraging specification of water efficient equipment.	
Water Efficient Equipment	Yes	Identify the systems or processes to reduce the unregulated water demand of the development and its operation, and demonstrate through either good practice design or specification a meaningful reduction in the total water demand of the building. For most buildings this will be about using as little potable water for planting, as possible.	The project team confirmed that the only potential unregulated water use will be irrigation for planting, and that all planting will rely solely on precipitation in order to help conserve water resources.
MATERIALS			
Environmental impacts from construction products - Building life cycle assessment (LCA)		To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.	
Embodied Carbon	Yes	Best practice is to conduct embodied carbon analysis of the superstructure and sub-structure to understand where the most carbon sits, and take steps to reduce it. Alternatively the Green Guide to Specification can be used to guide specification decisions.	A building superstructure LCA options appraisal will occur at Technical Design stage to help quantify the total embodied carbon within the proposed development.
Environmental impacts from construction products – EPDs		To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.	
Specification of products with a recognised Environmental Product Declaration (EPD)	Yes	Aim to use as many products with EPDs as possible. By choosing a construction product with EPDs, it means the product has been robustly verified for CO ₂ data.	The Contractor shall prioritise procuring and utilising materials with EPDs where possible. This will be included in the contract as a requirement.
Responsible sourcing of construction products		To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.	
Permanent Timber on site	Yes	Ensure by writing into contracts that all timber and timber based products used in the construction of the building must be legal and sustainable timber (e.g. FSC or PEFC certified).	The project team confirmed that this will be adopted, and that the use of timber in the building's construction will be limited due to its potential to encourage pests. Nonetheless, the Contractor will be expected to comply and this will be included in the contract as a requirement. .
Responsible sourcing	Yes	Construction products procured or specified should be responsibly sourced. Responsible sourcing accreditations include PEFC, FSC, ISO 14001 and BES 6001. Applicable materials categories include: Timber/timber-based products; concrete/cementitious; metal; stone/aggregate; clay-based; gypsum; glass; plastic, polymer, resin, paint, chemicals and bituminous; animal fibre/skin, cellulose fibre; other.	The project team confirmed that this will be pursued, and that the Contractor shall prioritise procuring and using materials with responsible sourcing certification where possible. This will be included in the contract as a requirement.
Designing for durability and resilience		To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape.	
Designing for Durability and Resilience	Yes	Protection is given to vulnerable parts of the building and landscaping against accidental or malicious damage (both internal and external), including areas exposed to high pedestrian traffic, vehicular and trolley movements. Protection is given to exposed parts of the building against material degradation due to environmental factors.	The project team confirmed that durable materials have been specified in the building's design in the form of a robust reinforced concrete frame and hard-wearing steel doors.

Sustainability Measure (Linked to BREEAM)	Considered?	Key Sustainability Principles	Project Comments
WASTE			
Construction waste management		To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.	
Pre-demolition audit	Yes	A pre-demolition audit is completed for any existing buildings, structures or hard surfaces being considered for demolition. This must be used to determine whether refurbishment, reuse or recycling is feasible and to set targets for waste management and maximise the recovery of material.	A pre-demolition audit will be conducted as the development will involve the removal of existing hard landscaping. The project team confirmed that there are plans to reuse the existing steel staircase in the development, and a pre-demolition audit will help to identify any further opportunities for material re-use.
Construction Resource Efficiency and the Diversion of Waste from Landfill	Yes	Prepare a Resource Management Plan (RMP) covering the non-hazardous waste related to onsite construction and dedicated offsite manufacture or fabrication (including demolition and excavation waste) generated by the building's design and construction. Where construction waste related to on-site construction and off-site manufacture/fabrication (excluding demolition and excavation waste) meets or is lower than the benchmarks as follows (per 100m2 GIFA): Good practice = 13.3m3 / 11.1 tonnes, Better practice = 7.5m3 / 6.5 tonnes, Best practice = 3.4m3 / 3.2 tonnes. 70% by volume /80% by tonnage of non-hazardous construction waste and 80% by volume/ 90% by tonnage of non-hazardous demolition waste generated by the development will be diverted from landfill and reused or recycled. Materials should be sorted into separate key waste groups, according to the waste streams generated by the scope of the works, either on or off-site.	The project team confirmed that the project will aim for good practice in minimising waste generation. Based on the proposed development's approx. GIFA of 538m ² , the total amount of non-hazardous construction waste (excluding demolition and excavation waste) should be ≤ 71.6m ³ / 59.7 tonnes. The Design and Access Statement highlights that the project has considered waste minimisation, noting that the Contractor will set out a designated area within the site for the collection and separation of waste for recycling, and will provide clear signage of materials to be recycled and the location for their collection.
Operational waste		To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.	
Operational Waste	Yes	There should be a dedicated space to cater for the segregation and storage of operational recyclable waste generated by the proposed development. The space must be clearly labelled, accessible and of a capacity appropriate to the building type, size, number of units and predicted volumes of waste.	This will be pursued. An easily accessible bin store is already present on site and the development will not contribute to an increase in overall waste production so this can continue to be used. Minor alterations to the existing bin store are recommended (e.g. added signage).
LAND USE & ECOLOGY			
Site selection		To encourage the use of previously occupied or contaminated land and avoid land which has not been previously disturbed.	
Previously Occupied Land	Yes	Aim for at least 75% of the footprint of the proposed development (including temporary site works) to have been previously occupied by industrial, commercial or domestic buildings or fixed surface infrastructure.	This is being met. The development will occur on existing hard landscaping which currently serves a car park, and therefore there will be no use of previously undeveloped or greenfield land. The car parking spaces will be moved to the other side of the site.
Contaminated Land	N/A	The land within the site is deemed to be significantly contaminated and all remediation required is carried out prior to development.	This issue is not applicable to the site as it is expected to not be contaminated and therefore no remediation is required.
Ecological risks and opportunities		To determine the ecological baseline and zone of influence of the site and identify risks and opportunities for achieving optimum outcomes.	
Ecological Considerations	Yes	In general projects should look to generate local ecological enhancement and increase site biodiversity (biodiversity net gain), or if not possible, minimise the loss of ecological value. Larger projects should consider involving an ecology specialist to help assess the current ecological baseline of the site and provide recommendations for improvement.	An Ecologist has been involved from the early design stages and has conducted a survey of the site. This has influenced the landscaping plans and helped to minimise overall ecological loss. The landscaping plans show that an existing tree to the south of the site will be felled, but this will be adequately compensated by the planting of two new Acre Campestre "William Caldwell" Trees on the eastern site boundary.
Long term ecology management and maintenance		To secure ongoing monitoring, management and maintenance of the site and, its habitats ecological features to ensure intended outcomes are realised for the long term.	
Landscape and ecology management plan	Yes	A landscape and ecology management plan is developed covering the first five years after project completion. The plan should follow BS 42020 Section 11.1 and be handed over to the Client to implement.	The project team confirmed that a Landscape and Ecology Management Plan will be produced for the site. This will help to support and maintain the ecological value of the site during building occupation.

Sustainability Measure (Linked to BREEAM)	Considered?	Key Sustainability Principles	Project Comments
POLLUTION			
Impact of refrigerants		To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.	
Impact of Refrigerants	Yes	Where possible, the use of low-GWP refrigerants should be prioritised.	This is being met in the design. The M&E drawings note that R-32 will be the refrigerant used in the building. This has a GWP of 675 which is significantly lower than alternatives such as R-134a (GWP 1,430) and R-410a (GWP 2,088).
Local air quality		To contribute to a reduction in local air pollution through the use of low emission combustion appliances in the building.	
Local air quality	Yes	All heating and hot water should be supplied by non-combustion systems (e.g. powered by electricity).	This is being met in the design. No gas systems will be present and only non-combustion systems have been specified for heating. There will be no hot water systems for the new extension.
Flood and surface water management		To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on-site and off-site, watercourse pollution and other environmental damage.	
Flood Resilience	Yes	The assessed development should be located in a zone defined as having a low annual probability of flooding, and have a low risk of flooding from all sources: fluvial, tidal, surface water, groundwater, sewers, reservoirs, canals and other artificial sources. OR if the development is located in a zone defined as having a medium or high annual probability of flooding and is not in a functional floodplain; then the ground level of the building and access to the building and site should be 600mm above the design flood level for the site's location, OR, the final building and site design should reflect recommendations made by appropriate consultant, in accordance with BS 8533: 2017.	The site is located in Flood Zone 1 and there is a low risk of flooding from rivers and the sea. Flooding from groundwater and reservoirs in the area is also unlikely according to the UK government flood risk information website.
Surface Water Run-Off	Yes	Surface water drainage measures such as SuDs should be specified to ensure that the peak run-off rate shows an improvement for the developed site compared to pre-development. Maintenance agreements should be in place for the ownership, operation and maintenance of all specified SuDs.	KRP Consulting Engineers have designed a bespoke site-specific drainage strategy for the development. This includes the implementation of new storm drains and the installation of a 12m long attenuation system comprised of individual Wavin Aquacell attenuation crates. These measures will help to minimise surface water run-off.
Reduction of night time light pollution		To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, thereby reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.	
Reduction of Night Time Light Pollution	Yes	The external lighting design should comply with an appropriate standard to limit light pollution levels (e.g. ILP Guidance Notes for the Reduction of Obtrusive Light (Table 2 of the 2011 guidance or Tables 3-8 of the 2020/2021 guidance)), and all external lighting (except security lighting) is automatically switched off between 2300-0700. If safety or security lighting is provided, these should dim down to lower levels.	The M&E drawings show that external lighting is present and note that all external luminaires shall automatically dim to 10% ten minutes after the last activation at the front of the building and to 0% at the rear of the building. The external car park security lighting will also only operate at 10% when not activated in the hours of darkness. The external luminaires will comply with the Government's light pollution policy reference E1 standard with downlighting only.
Reduction of noise pollution		To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise-sensitive buildings.	
Reduction of Noise Pollution	Yes	The noise levels from the proposed development, when measured at the nearest/most exposed noise sensitive development, should be lower than the background noise throughout the day and night. Where changes in noise level exceed this, measures should be installed to attenuate noise at its source in order to comply with these levels.	The project team confirmed that this will be pursued. The design has considered the mitigation of potential noise pollution generated from the rooftop plant area by specifying 3no. supply air and 3no. return air attenuators for the Air Handling Units.

PROJECT TEAM KEY:	
Client = West Berkshire Council	Structural Engineer = KRP Engineers
Project Manager = MTP Consultants	Civil Engineer = KRP Engineers
Architect= Quattro Design Architects	Contractor = TBC
M&E = Mechanical and Electrical Engineer (Proair Consultants)	
Sustainability Professional = Method Consulting	

Completed by: JSM Date: 22/05/25
Checked by: CEW Date: 30/05/25