Hayes Digital Park Masterplan

Circular Economy Statement

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Prepared on behalf of Colt Data Centre Services

Quality management			
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1 Introduction

1.1.1 This section discusses the key principles of a Circular Economy (CE) and how these have been adopted for the proposed development. A brief description of the project and the project's circular economy aspirations and commitments are provided below.

1.2 The Circular Economy

1.2.1 A CE is defined in London Plan[1] Policy SI 7 'Reducing waste and supporting the circular economy' as *"one where materials are retained in use at their highest value for as long as possible and are then reused or recycled, leaving a minimum of residual waste".*

1.2.2 The end goal of a CE is to keep materials and resources in use indefinitely, through recycling and reusing, with no reliance on finite resources and no residual waste. This stands in contrast to the traditional linear economic model, which follows the 'take, make, use' system. A CE extends this system to consider the end-life of materials and possible re-use, shown by Figure 1-1 as 're-make' and 'use-again'.

Figure 1-1: Linear, recycling and circular economies

Reproduced from: London Plan Guidance Circular Economy Statements

[1] Mayor of London (2021): The London Plan. [Online]. Available at: https://www.london.gov.uk/programmes-strategies/planning/london-plan/london-plan-2021, accessed 20/01/2025

1.2.3 Applying CE thinking to new development requires consideration of a range of overlapping issues, recognising the relevant trade-offs where these occur. The London Plan Guidance (LPG) Circular Economy Statements[2] outlines the six CE principles, which should be a fundamental part of the building design process. These are:

1. **Building in layers –** ensuring that different parts of the building are accessible and can be maintained and replaced where necessary;

2. **Designing out waste –** ensuring that waste reduction is planned in from project inception to completion, including consideration of standardised components, modular build, and reuse of secondary products and materials;

3. **Designing for longevity;**

4. **Designing for adaptability or flexibility;**

5. **Designing for disassembly; and,**

6. **Using systems, elements or materials that can be reused and recycled.**

1.3 Description of the Development

1.3.1 The planning application which this circular statement accompanies comprises the following:

"Hybrid planning application for a four-phased redevelopment to deliver a data centre campus comprising of:

Phase 1 – Full planning permission for (a) a data centre building (b) energy, power, and water infrastructure (c) site access and internal roads including a vehicular and pedestrian link between Uxbridge Road and Bullsbrook Road (d) site security arrangements and security fencing (e) hard and soft, green and blue, infrastructure and (f) other ancillary and auxiliary forms of development;

Phase 2 – Outline planning permission for (a) an Innovation Hub (b) hard and soft, green and blue, infrastructure and (c) other ancillary and auxiliary forms of development;

Phase 3 - Outline planning permission for (a) a data centre building (b) energy, power, and water infrastructure (c) internal roads (d) site security arrangements and security fencing (e) hard and soft, green and blue, infrastructure and (f) other ancillary and auxiliary forms of development; and

Phase 4 - Outline planning permission for (a) a data centre building (b) energy, power, and water infrastructure (c) internal roads (d) site security arrangements and security fencing (e)

[2] Mayor of London (2022): London Plan Guidance: Circular Economy Statements. [Online]. Available at: https://www.london.gov.uk/programmes-strategies/planning/implementing-london-plan/london-plan-guidance/circular-economy-statement-guidance, accessed 20/01/2025.

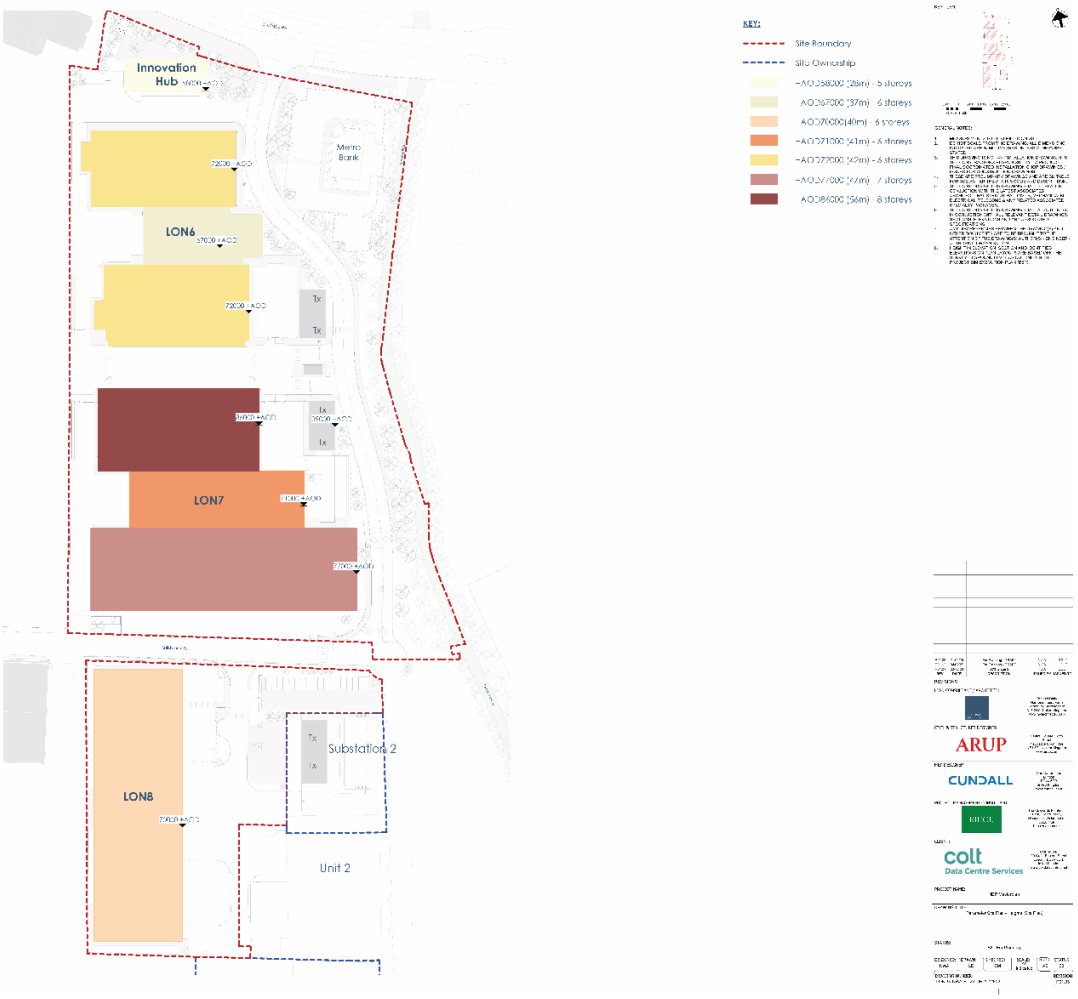
hard and soft, green and blue, infrastructure and (f) other ancillary and auxiliary forms of development."

1.3.2 The Proposed Development can therefore be grouped into the following elements:

- A detailed planning application comprising:
  - one data centre up to 25,234 m^2 (hereby referred to as 'LON06'); and
- An outline planning application comprising:
  - a data centre up to 53,415 m^2 (hereby referred to as 'LON07');
  - a data centre up to 29,656 m^2 (hereby referred to as 'LON08'); and
  - an affordable workspace building up to 2,000 m^2 (referred to as the 'Innovation Hub').

1.3.3 Figure 1-2 illustrates a the Proposed Development site. The Metro Bank building and use in the northeast corner of the site will be retained.

Figure 1-2: Parameter Site Plan



1.3.4 The Proposed Development is located within the administrative area of the London Borough of Hillingdon (LBH). The site and its immediate surroundings are subject to a number of extant planning permissions, the details of which are outlined below for context.

1.3.5 Colt secured planning permission from LBH in 2022 for the redevelopment of the former Trinity Data Centre, Veetec Building, and Tudor Works sites at Beaconsfield Road in Hayes to deliver two data centre buildings (referred to as 'LON04' and 'LON05') (alongside substation and tank rooms) which together provide more than 37,000 m^2 of floorspace (ref. 38421/APP/2021/4045).

1.3.6 Since the granting of planning permissions for Buildings 1 and 2 (ref. 38421/APP/2021/4045), Colt has acquired Heathrow Interchange and Hayes Bridge Retail Park. The southern boundary of Heathrow Interchange immediately abuts the northern boundary of the site that Colt is presently redeveloping.

1.3.7 The proposed site sits as part of a wider commercial area which is broadly bound to the north by Uxbridge Road, the west by Springfield Road (and Minet Country Park), to the east by the Yeading Brook, and to the south by Beaconsfield Road. The broader area comprises of a mix of commercial operations with retail uses located predominantly in the northern part and industrial, storage, and manufacturing operations across much of the central and southern areas.

1.3.8 The site consists of two distinct parts which together have a site area of approximately 4.4 ha but are separated from each other by Bullsbrook Road, an adopted highway which serves other premises within the wider commercial area.

1.3.9 On the northern side of Bullsbrook Road is Hayes Bridge Retail Park. The Hayes Bridge Retail Park consists of a terrace of seven retail units and a standalone commercial bank (Metro Bank) set around a central surface car park which is accessed from the Uxbridge Road. The majority of these units are vacant. There is a live plication to demolish Hayes Bridge Retail Park (ref. 1911/APP/2025/398). It is anticipated that demolition of units within the retail park (except for Metro Bank) will take place whilst this application is being considered.

1.3.10 To the south of Bullsbrook Road and Hayes Bridge Retail Park is Heathrow Interchange. Heathrow Interchange consists of a series of industrial units arranged into two parallel terraces which are orientated north-south and separated from each other by an open yard with parking and vehicle turning which is served by Bullsbrook Road. Each terrace is split into two units so that there are four units within Heathrow Interchange. A Prior Notification Application was submitted and approved for the demolition of Unit 1 (ref. 71554/APP/2024/2490) and it is envisaged that the unit will be demolished whilst this application is being considered. There is a live application for planning permission for a substation in this location (ref. 71554/APP/2025/47). Unit 2, the southern unit on the eastern terrace, is outside of Colt's ownership and is excluded from this application.

1.3.11 Further, there is a live application to demolish Units 3 and 4 of Heathrow Interchange (ref. 71554/APP/2025/466). This application is likely to be approved and demolition to take place prior to the determination of the hybrid application.

1.4 Method Statement

1.4.1 This CES focusses primarily on LON06, the data centre for which full planning permission is sought, but the CE principles discussed are applicable to all elements of the Proposed Development outlined above. Colt intend to develop the outline elements of the hybrid scheme following the principles employed for LON06, and indeed those previously implemented during the design and development of LON04 and LON05. This can be secured as a planning condition

1.4.2 As part of the planning and design process, a workshop was held on 18 February 2025 to identify the most suitable strategic approach and the best options for applying the CE principles to the Proposed Development. Attendees at the workshop included a senior representative of the client, and consultants and circular economy specialists. The workshop was guided by the LPG Circular Economy Statements document. The current design detail is RIBA Stage 2 and so the role of the session was to ensure the key principles of CE are fully understood by those involved with the project. It is intended that these principles will be captured in the Sustainable Procurement Strategy, Site Waste Management and Operational Waste Management Plans, which will be developed at a later design stage, prior to construction.

1.4.3 As previously mentioned, the Applicant recently received planning permission for two data centre buildings located immediately to the south of the site, LON04 and LON05. A CES was required for these buildings, and hence a similar workshop was held during the design stage of LON04 and LON05. The CE principles established during the design stage of LON04 and LON05 were discussed during the workshop for the Proposed Development and have been reapplied, with more ambitious CE targets sought where possible. The targets and principles established through the work undertaken for LON04 and LON05 have been incorporated in Colt's procurement policies and processes.

1.4.4 Other discussion points from the workshop revolved around the demolition process, plans to reuse and recycle existing site materials, sourcing resources, day-to-day operations and energy and waste management strategies. Details on how these segments incorporate the circular economy are provided in the latter part of this statement. The relevant documents and reports required for the completion of the Circular Economy Statement were highlighted including a sustainability checklist, a BREEAM pre-assessment, a zero waste to landfill policy document, and cost plan (preliminary bill of materials).

1.4.5 Detailed designs are likely to evolve throughout the application process. As such, additional workshops will be carried out at various milestones during the detailed design phase. Early engagement will be sought with contractors during the construction stage and a pre-demolition audit and sustainable procurement strategy will be developed prior to construction to ensure principles of the circular economy are adhered to.

1.5 Circular Economy Aspirations

1.5.1 The project team interpret Circular Economy in the following way:

- Ensuring that different parts of the building are accessible and can be maintained and replaced where necessary.
- Setting ambitious targets for waste minimisation, re-use and recycling of existing site materials throughout the excavation and construction process and maintaining these ambitions in day-to-day operations of the site.
- Setting high waste efficiency targets along with high diversion from landfill percentages for both demolition and construction waste.
- Ensuring there is sufficient waste segregation and storage facilities in demolition, construction and operation.
- Designing for longevity, adaptability and flexibility.
- Designing for disassembly.

1.5.2 As such, Colt have set the following commitments:

- Prioritise re-use of existing structures/materials;
- Increase the use of recycled content;
- Use materials that can easily be reused at the end of their life;
- Use appropriate durable materials and products;
- Ensure each building element is serviceable and maintainable;
- Optimise design for longevity, flexibility, adaptability, standardisation;
- Maintain materials at their highest value;
- Use low carbon and non-toxic materials; and,
- Facilitate disassembly, deconstruction and end of life recoverability.

2 Strategic Approach

2.1.1 In order to implement circular economy principles most effectively, it is helpful to explore high-level strategic opportunities as early in the development process as possible. Selecting the best strategic approach depends on context, the nature of the development in terms of its components and their respective lifespans as well as owner and occupier needs. This was done for both the detailed and outlined elements of the Proposed Development, in line with the 'Decision Tree' provided in the LPG Circular Economy Statements document, which separates this process into two sections:

1. Strategies for maximising residual value;
2. Strategies for maximising value over the lifetime of the development by adding new buildings/infrastructure.

2.1.2 Whereas the Metro Bank building in the northeast of the site is to be retained, it is not technically feasible or viable to retain the existing buildings on the site either in whole or in part due to the age of these buildings and the infrastructure requirements of the Proposed Development. However, it is technically feasible and viable to recover the residual value of the building elements and materials from the existing structures. This primarily comes from the structural steel framework of the existing buildings and to a lesser extent concrete and brickwork. It is not feasible to recover and clean bricks on site. As such, the strategy for maximising residual value is to extract the internal components of the existing buildings for resale to other users, demolish, segregate and reuse useful structural components, strip out fixtures and fittings, including copper pipework, cabling, etc., with the balance being exported to aggregate and inert waste recycling centres. In addition, opportunities to incorporate existing foundations into the future foundation design will be carefully explored.

2.1.3 The expected lifespan of the data centre is long, with an intended use of 60 years. Operational machinery such as chillers and generators have a shorter lifespan of 15-20 years. Due to the nature of data centres, there is also a need for IT equipment installed within the building to be serviced regularly with a substantial upgrade every 3-5 years as technology advances. The specific IT equipment that will be installed in the Proposed Development is not known at this stage. It would depend on tenants' needs for particular computing workloads. With these factors in mind, the strategy adopted for maximising value over the lifetime is to design for both adaptability and replaceability, i.e. 'building in layers'. Additionally, with regard to other components of the Proposed Development, such as the Innovation Hub, there is the need for adaptability and replaceability as the equipment requires upgrading, the layout requires changing and internal design requires updating, again dependent on future tenants' needs.

2.1.4 It is also best practice that any development should be designed for disassembly. The data centre and 'Innovation Hub' will be built of modular components that can be deconstructed and re-located to a new site at the end-of-life if this becomes necessary and appropriate. Equally, most of the components making up the data centre structure and fit out (and other components of the Proposed Development such as the Innovation Hub) could be recycled – such as the structural steelwork. A manual will be developed during detailed design that explains how the buildings should be maintained, serviced and eventually de-constructed in stages. It will also outline

potential alternatives for re-fit and adaptation. Further details of the strategic approach can be found in Appendix A.

3 Policies and Regulations

3.1.1 This section highlights the policies and regulations relevant to the Proposed Development.

3.1.2 The National Planning Policy Framework sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced.

3.1.3 The London Plan 2021 is the Spatial Development Strategy for Greater London. It sets out a framework for how London will develop over the next 20-25 years and the Mayor's vision for Good Growth. Policy GG6: 'Increasing efficiency and resilience' states that to help London become a more efficient and resilient city, those involved in planning and development must seek to improve energy efficiency and support the move towards a low carbon circular economy, contributing towards London becoming a zero-carbon city by 2050. Policy SI2: 'Minimising greenhouse gas emissions' supports this and states that major development should be net-zero carbon, which a circular economy approach can help to achieve. Policy D3: 'Optimising site capacity through the design-led approach' requires that all new developments aim for high sustainability standards and take into account the principles of the circular economy. Finally, Policy SI7 sets out the policy relating to reducing waste and supporting the circular economy, and is presented in Appendix B.

3.1.4 The London Borough of Hillingdon's approach to sustainable development is underpinned by policies from the London Plan and the Hillingdon Local Plan (Local Plan Part 2 – adopted version 16th January 2020). Particularly of relevance, Development Management Policy DMIN4 (Reuse and Recycling of Aggregate) states:

- The Council will promote the recycling of construction, demolition and excavation waste;
- All developments will be encouraged to:
  - recycle and re-use construction, demolition and excavation waste as aggregates.
  - process and re-use the recyclable material on-site, and where this is not possible, the material should be re-used at another site or for land restoration; and
  - use substitute or recycled materials in new development in place of primary minerals.

3.1.5 Together these documents provide spatial policies, development management policies and site allocations to guide and manage development in the borough.

3.2 BREEAM

3.2.1 Hayes Digital Park aims to achieve sustainability far in excess of minimum standards. To facilitate this and provide a metric against other buildings, BREEAM 'Excellent' certification will be targeted.

3.2.2 BREEAM assesses buildings against a range of sustainability categories, including:

- Management;
- Health & Wellbeing;
- Energy;
- Transport;
- Water;
- Materials;

- Waste;
- Land Use and Ecology;
- Pollution; and,
- Innovation.

3.2.3 The data centre buildings will be assessed against BREEAM Data Centres 2010 (the most recent BREEAM assessment tool for data centres). As the Innovation Hub is not a data centre building, it will be assessed under BREEAM New Construction v6.

3.2.4 There is considerable overlap between elements of the BREEAM process, namely water, materials and waste and circular economy aims.

4 Approach to Circular Economy

4.1.1 This section provides a detailed description of how the core principles of the circular economy principles will be implemented; this includes measures to conserve resources, eliminate waste and manage waste sustainably. Building weight calculations etc. can be found in the accompanying whole life-cycle carbon assessment and cost plan which details bill of materials.

4.2 Core Principle 1: Building in Layers

4.2.1 The majority of the development will be designed for adaptability within the building layers, and the Design Principles by Building Layer table within the GLA template has been completed to demonstrate where the project has gone beyond standard practice. The overall design of the building has been focussed around building in layers to ensure that elements with longer lifespans can be used to their full lifespan potential. This is observed particularly in the superstructure, which follows the approach of manufacturing the majority of the data centre build off-site. The structural design is such that the internal items could be stripped out, removed and recycled. This aids in the ability to maintain and replace internal items when necessary. Additionally, plant replacement and clear access routes have been established as part of the design.

4.3 Core Principle 2: Designing out Waste

4.3.1 In line with this principle of the CE, the Proposed Development has focused efforts on reducing the quantities of materials and other resources used whilst ensuring materials are sourced responsibly throughout the construction process.

Minimising the Quantities of Materials

4.3.2 The scheme is associated with the demolition of Units 1, 3 and 4 of the existing Heathrow Interchange and Hayes Bridge Retail Park to sub slab level. As described above, this is anticipated to take place whilst this application is being considered in accordance with an application for prior notification of demolition. A Contractor Method Statement will be prepared to show how these structures will be taken down and how materials will be segregated for re-use or recycling. Structural steel will be recovered and assessed for re-use or recycling, concrete will be segregated and crushed for re-use, with the balance exported to other construction sites, and hazardous materials such as asbestos will be segregated and removed for disposal separately. The majority of copper electrical wiring, bus bars, earthing strips and any other metal based wiring will also be recovered for recycling. Opportunities to retain and re-use existing materials on-site, where possible, will be explored. This exercise will include integrity testing of existing piles to determine the extent to which these can be re-used and incorporated in the future foundation design.

4.3.3 The scheme intends to prioritise products and systems that have been reclaimed or have a high degree of recycled content, for example concrete and steel. It will utilise modern methods of construction. This will be included in the specification process which will be part of the Sustainable Procurement Policy and Supplier Code of Conduct.

4.3.4 All new buildings have been designed in standard rectangular shapes, ensuring compact, efficient shapes and avoiding complex design. The scheme not only proposes standard material systems

such as standard glazing, metal panel system, brick wall, plasterboard partition, but also minimises the number of different materials for the scheme, as is exemplified by the similarity in the specification. This is also relevant to Core Principles 4, 5 and 6, which are set out below.

4.3.5 Lightweight construction uses less material, which reduces the carbon footprint of the building as there is less material to source, fabricate and deliver to site. The use of light-weight stud partitions in the scheme is a good example of lightweight construction technologies proposed in the building. The scheme intends to further investigate opportunities to use less material and minimise embodied carbon.

Minimising the Quantities of other Resources Used

Water

4.3.6 As noted within the Water Cycle Strategy, LON06, LON07 and LON08 of the Proposed Development are targeting a minimum of 3 credits for the Wat 01 BREEAM credit, which is to be assessed under the BREEAM Data Centres 2010 tool.

4.3.7 To achieve this, the flow rates and WC flush volumes outlined in Table 4-1 are proposed.

Table 4-1: Proposed maximum flow rates and flush volumes for the data centre buildings

Fixture	Proposed Water Consumption Figure
WCs	4.5 L
Showers	9 L/min
Wash-hand basin taps	6 L/min

Reproduced from the Water Cycle Strategy

4.3.8 Likewise, the Innovation Hub will target a minimum of 3 credits for the Wat 01 BREEAM credit. As it is not a data centre building, the Innovation Hub will be assessed under BREEAM New Construction v6.

4.3.9 To achieve this, the flow rates and WC flush volumes outlined in Table 4-2 are proposed.

Table 4-2: Proposed maximum flow rates and flush volumes for the Innovation Hub

Fixture	Proposed Water Consumption Figure
WCs	4.5 L
Showers	9 L/min
Wash-hand basin taps	6 L/min
Kitchen taps	6 L/min
Urinals	1.5 L/bowl/hr

Reproduced from the Water Cycle Strategy

4.3.10 Supplementing the above, it is proposed that 100% of the WC flushing water will be provided by recovered rainwater. Rainwater will be collected from the roof and stored in a dedicated rainwater harvesting tank via a filter. This will also provide some attenuation for the building and reduce the rate of wastewater entering the Thames Water wastewater infrastructure.

4.3.11 Further, water loss is proposed to be minimised through the installation of a leak detection system, which will monitor leaks between the Affinity Water streety utility water meter and the internal site water meter. The two meters will be linked via a Building Management System to monitor any leaks. In addition, Solenoid valves will be fitted to the boosted cold-water service to each toilet area in the building. The valves will be linked to PIR occupancy sensors to automatically turn off the boosted cold-water supply to the toilet area when there are no occupants present.

4.3.12 As explained in the Water Cycle Strategy, the BREEAM WAT06 credit will be targeted by the proposed landscaping design. There will be rainwater harvesting on the site which will predominantly be used for WC flushing, any leftover may be used for other purposes such as irrigation.

Energy

4.3.13 A 'fabric first' approach, whereby the building materials and build-ups are selected to reduce the overall energy demand, would make buildings extremely energy efficient and minimise operational energy use and carbon emissions. Other measures to reduce operational energy use will be explored in line with the energy hierarchy. Following the reduction in energy demand and increased energy efficiency of the scheme design, the viability of low or zero carbon technologies, such as solar PV, is being explored. As explained in the Sustainability and Environmental Checklist, 20% of the roof space of the admin buildings of LON06, LON07 shall be provided with PV, as well as 70 m^2 of availability on the Innovation Hub Roof. Solar PV will be maximised where possible.

4.3.14 Further, the Proposed Development will incorporate water-to-water heat exchangers to allow for future connection to a district heating scheme. Waste heat generated from data halls can be utilised both internally and exported off-site. This heat will be low grade heat, likely to be in the region of 25°C. With booster heating this surplus heat would be usable by another building district heating scheme.

Sourcing Responsibly

4.3.15 The scheme does not specify any 'exotic' materials and components, instead relying on locally manufactured products and local contractors as far as possible. The scheme intends to source specified products from the nearest possible manufacturer which meet project performance standards. Available systems that are procured in the UK will be preferred, assuming the whole life performance, reliability, and carbon impact is not sacrificed.

4.3.16 A Sustainable Procurement Policy will be applied for materials and products as part of the specification process. Requirements will be put in place to monitor the supply chain in terms of responsible sourcing.

Minimising Construction, Demolition, Excavation and Municipal Waste

4.3.17 The principles of circular economy support the application of the waste hierarchy, where avoiding or reducing waste is prioritised. The scheme would apply the following principles to minimise waste:

- For excavation waste, cut and fill strategies will be designed to maintain material on site where practical.
- Building materials can be recycled at the end of life.
- All circular economy targets will be met or exceeded: a minimum of 95% of demolition, excavation and construction waste to be diverted from landfill; minimum 65% of municipal (commercial and industrial) waste to be recycled by 2030; and minimum 20% of the building material elements to be comprised of recycled or reused content.

4.3.18 A Site Waste Management Plan will be prepared for the project to minimise waste generation and to monitor waste arising.

4.4 Core Principles 3, 4 and 5: Designing for Longevity, Adaptability, Flexibility and Disassembly

4.4.1 The scheme specifies materials and component systems with a relatively long-life expectancy. This can be seen in the current specification of:

- concrete and structural steel substructure and frame - all of which present at least 60 years' service lives;
- windows and external doors present a service life of 30 years;
- cladding in the façade have a service life of 30 years, whilst the glazed cladding has a service life of 35 years; and
- wall finishes and floor finishes present a service life of 30 years, and ceiling finishes present a service life of 20 years, with render/paint being replaced every 10 years.

4.4.2 As previously mentioned, the scheme has been designed to facilitate adaptation and flexibility, with buildings built of modular components and internal elements designed to be reconfigurable to support varied customer requirements and extend the useful life of the buildings (e.g. should the tenant wish to create larger spaces by removing walls etc.). Connections would not be welded or chemically bonded, with the preferencing being bolts, screws, and nailed connections to allow for ease of disassembly. This is the industry standard for data centre buildings.

4.5 Core Principle 6: Using systems, elements or materials that can be reused and recycled

4.5.1 As noted above, the buildings of the Proposed Development will comprise modular systems and internal elements designed to be reconfigurable to support varied customer requirements and extend the useful life of the buildings (e.g. should the tenant wish to create larger spaces by removing walls etc.)

Commercial and Industrial Waste

4.5.2 Management of commercial and industrial waste arising from the workforce will be enabled through sufficient segregation and storage facilities located to serve all buildings throughout the site. These will allow for the segregation of plastics, paper, card, metal, glass, food, green and general waste during operation. Waste Electrical and Electronic Equipment (WEEE) will be managed in accordance with the WEEE Regulations, with the emphasis being on re-use/re-sale of equipment and high value recycling/recovery of any residual WEEE during operation.

5 End of Life Strategy

5.1.1 The following section describes the strategy which will be taken to ensure that all site materials and components can be disassembled and reused at the end of the data centre's useful life.

5.1.2 The building structures has been designed with an intended lifespan of at least 60 years and for repurpose and independent replacement of individual elements, based on their design life periods and tenant needs. The intention will be to prolong the useful life of the structure by refitting elements progressively over time. In addition, the data centre components will be designed and selected to facilitate disassembly and reuse at the end of their useful life. For example, the lightweight construction materials planned for the buildings, such as lightweight stud partitions, with fewer fixings, will aid in this process. Similarly, every structural steel component will be bolted together with careful design of the steel bolts to ensure these can be removed if this becomes necessary and appropriate at the end of the life of the building. The key challenge to implementing design for disassembly and reuse relates to the data centre and 'Innovation Hub' tenants' specific requirements for the fit out. This will be monitored and addressed as the project progresses.

5.1.3 The design team will prepare a maintenance and end of life deconstruction method statement during the detailed design process.

Appendix A: Strategic Approach

Aspect	Phase / building / area	Steering approach	Explanation	Target	Supporting analysis / studies / surveys / audits
Circular economy approach for the existing site	Existing buildings	Maximise reuse, recycling and recovery of demolition waste BREEAM Wst01 requirement: A pre-demolition audit will be carried out where demolition is required	Metals will be separated on site to determine what can be reused Structural steel will be recovered for recycling Concrete will be segregated and crushed for re-use	95% diversion	BREEAM Pre-assessment Zero Waste to Landfill policy Supplier Code of Conduct
Circular economy approach for the new developmen t	Whole Development	Buildings will be designed for durability	Utilising durable, long lasting materials		BREEAM Pre-assessment Pre-construction engagement with supply chain and main contractors Site Waste Management Plan (to be produced and submitted at a later design stage) Zero Waste to Landfill policy
		Buildings will be designed for functional adaptability	Building lifespan will be increased by designing for both flexibility and adaptability		
		Materials will be sourced sustainably	Local suppliers to be preferred where possible to reduce material transport distances.	Minimum 20% of building material elements to be comprised of recycled or reused content.	
		Material use will be optimised	Wastage on site can be reduced by using materials efficiently		
		Manage excavation / construction waste - For excavation waste,	Measures to be implemented	95% diversion from landfill	

Aspect	Phase / building / area	Steering approach	Explanation	Target	Supporting analysis / studies / surveys / audits
		cut and fill strategies will be designed to maintain as much material on site where practical. New construction will consider the use of pre-fabrication offsite	to manage and reduce excavation and construction waste		
		Reuse and recycling at end of life	Designing for disassembly and deconstructio n will ensure materials can be retained at a high value		
Circular economy approach for commercial (& industrial) waste during operation	Whole development	A project-specific Operational Waste Management Strategy has been prepared in accordance with relevant requirements, in order to embed and enable sustainable waste management in operation Users will be responsible for following Waste from Electrical and Electronic Equipment (WEEE) Regulations.	Onsite waste segregation and storage facilities will be provided throughout operation	At least 65% recycled for municipal waste and 75% recycled for business waste	Operational Waste Management Strategy, including monitoring and audit of residual C&I waste management / treatment processes
Circular economy approach for end of life	Whole development	Components will be designed and selected to facilitate disassembly and reuse at the end of their useful life.	Circular economy targets for reuse, recycling and recovery	95% demolition waste diverted from landfill	Maintenance and end of life deconstruction method statement

Appendix B: Policy SI 7 ‘Reducing Waste and supporting the Circular Economy’

It is important that plans to apply the principles of the circular economy pay attention to policy S1 7 ‘Reducing waste and supporting the circular economy’ of the London Plan and ensure that targets and commitments have regard to this policy. The policy is reproduced below as follows:

Resource conservation, waste reduction, increases in material re-use and recycling, and reductions in waste going for disposal will be achieved by the Mayor, waste planning authorities and industry working in collaboration to:

1. promote a more circular economy that improves resource efficiency and innovation to keep products and materials at their highest use for as long as possible
2. encourage waste minimisation and waste prevention through the reuse of materials and using fewer resources in the production and distribution of products
3. ensure that there is zero biodegradable or recyclable waste to landfill by 2026
4. meet or exceed the municipal waste recycling target of 65 per cent by 2030
5. meet or exceed the targets for each of the following waste and material streams:
6. construction and demolition – 95 per cent reuse/recycling/recovery
7. excavation – 95 per cent beneficial use
8. design developments with adequate, flexible, and easily accessible storage space and collection systems that support, as a minimum, the separate collection of dry recyclables (at least card, paper, mixed plastics, metals, glass) and food.

Referable applications should promote circular economy outcomes and aim to be net zero-waste. A Circular Economy Statement should be submitted, to demonstrate:

1. how all materials arising from demolition and remediation works will be re-used and/or recycled
2. how the proposal’s design and construction will reduce material demands and enable building materials, components and products to be disassembled and re-used at the end of their useful life.
3. opportunities for managing as much waste as possible on site
4. adequate and easily accessible storage space and collection systems to support recycling and re-use
5. how much waste the proposal is expected to generate, and how and where the waste will be managed in accordance with the waste hierarchy
6. how performance will be monitored and reported.

Development Plans that apply circular economy principles and set local lower thresholds for the application of Circular Economy Statements for development proposals are supported.