Circular Economy Statement

RIBA Stage 2

Stoney Wood Property Developments Ltd

Stoney Wood Quarter

The Fairway
London
NW7
London Borough of Barnet

Version	Revision	Date	Author	Reviewer	Project Manager
1	A	22.05.2025	Lamya Salem	Dominique Mole	Lamya Salem
1	B	09.06.2025	Lamya Salem	-	Lamya Salem
1	C	16.06.2025	Lamya Salem	-	Lamya Salem
1	D	19.06.2025	Lamya Salem	-	Lamya Salem
2	A	07.11.2025	Lamya Salem	-	Lamya Salem
2	B	11.11.2025	Lamya Salem	-	Lamya Salem
2	C	20.03.2026	Lamya Salem	-	Lamya Salem
2	D	19.06.2026	Lamya Salem	-	Lamya Salem

SRE Main Office

3 London Square | Cross Lanes

Guildford | Surrey | GU1 1UJ

T: +44 (0)1730 710044

E: info@sre.co.uk

W: www.sre.co.uk

Contents

Introduction

1.0 Introduction

This Circular Economy (CE) Statement has been prepared by SRE on behalf of Stoney Wood Property Developments Ltd (The Client) to demonstrate the sustainability measures incorporated into the design of the redevelopment at Stoney Wood Quarter, Barnet (The Proposed Development). With aims of satisfying London Plan policies GG5 and SI7 and the Greater London Authority March 2022 guidance, the Circular Economy Assessment outlines how the adoption of Circular Economy principles throughout the design, demolition, construction, operation, and end-of-life phases of the Proposed Development has been considered at all stages of the Proposed Development's life cycle.

The figures within this report may be based on indicative modelling and an assumed specification outlined within the relevant sections. Therefore, this modelling may not represent the as built emission or energy use of the Proposed Development and further modelling may need to be undertaken at detailed design stage to confirm precise performance figures. Please contact SRE should you have any questions, or should you wish further modelling to be undertaken post planning.

1.1 The Site and Proposed Development

The Proposed Development is for *"Redevelopment of the site for use as residential (Class C3), in new buildings up to ground plus 5 storeys. Ancillary flexible (Class E) uses at ground floor level. Together with plant, play space, car and cycle parking, hard and soft landscaping and all other works associated with the development".*

The Site is located on the northern side of the Fairway in the north of the London Borough of Barnet. It is to the east of the M1 and west of Barnet Way.

The Site is approximately 17,600 sqm in size and has no prevailing or dominant architectural style north of the Fairway, typology or local context. It is highly varied and the housing development which surrounds it is wedged between the M1 and Thameslink/Midland Mainline to the west and the A1 Barnet Way to the east. The south is dominated by a variety of interwar "metroland" semi-detached houses. There are flats and maisonettes located within the area in addition to larger family homes.

The site is bounded by Fairway and Northway School to the east and Stoney Wood woodland to the west which merges into Mill Hill Golf Course north and northeast of the Site. To the south of the Site is residential, with detached and semi-detached dwellings situated on large plots with front and rear gardens.

Figure 1 demonstrates the location of the Proposed Development. The Site Plan for the Proposed Development is shown in Appendix A.

Figure 1 - Location of the Proposed Development (Google Maps)

The Proposed Development will aim to deliver lower energy and water use, lower carbon emissions and lower operational costs than a Building Regulations Compliant design through a 'fabric first' approach to the building design, in line with best practice. The site will also be assessed in accordance with the RICS 'Whole Life Carbon Assessment for the Built Environment, and will incorporate Circular Economy principles within the overall design, procurement, and construction process, following the March 2022 Greater London Authority (GLA) Circular Economy guidance[1] as a methodology.

In advance of the submission of the full planning application, this Circular Economy Statement was prepared by SRE and reviewed by the Design Team within a Circular Economy workshop held on 8th May 2025. Written and verbal feedback was received, which has been taken into consideration in the preparation of the final Circular Economy Statement. Post-meeting notes from this workshop can be found in Appendix B.

The following strategic approach is to be adopted at each key development phase, as shown in Table 1.

[1] Mayor of London, London Plan Guidance-Circular Economy Statements, March 2022. Available at: https://tinyurl.com/yckx9akr

Aspect	Phase	Steering Approach	Explanation	Target	Supporting Analysis/ Studies/ Audits
Circular Economy Approach for the existing site	Demolition	No demolition will occur on-site.	-	-	-
Circular Economy Approach for the Proposed Development	Design	Reduction of carbon emissions and development of a flexible and durable building.	Reduction of Carbon Emissions through material selection and the undertaking of a whole life carbon assessment to clarify likely carbon output.	<850 kgCO2e/m2 (modules A1-A5) GLA benchmark (Residential)	WLCA Study – Indicative materials carbon quantification shows 472 kgCO2e/m2 (modules A1-A5)
	Design	Building in Layers Approach to provide robust design built for longevity.	Building in Layers Assessment to confirm approach to material selection in line with the Building in Layers methodology.	Justification for the materials selection in line with the methodology.	Building in Layers Appraisal – included within Section 5. One Click output has confirmed a circularity performance of 31% for the Proposed Development.
	Construction	Reduction in on-site emissions.	Reducing impacts to the local and global environment through the limiting, reporting and targeting of emissions and waste production and a robust site policy process.	>95% of non-demolition waste from site diverted from landfill. Energy and water use to be monitored on site with appropriate targets set. Waste to be minimised and diverted from landfill.	Resource Management Plan is to outline all site requirements with regards to energy, water and waste.
Circular Economy Approach for municipal waste during operation	Operation	Enhance the ability of building occupiers to increase recycling rates.	Facilitate the easy and convenient segregation of waste by building users for the operational phase of the building.	The scheme is to target >65% for municipal waste with an aspirational target >75%.	Correctly sized, located and labelled bins to be provided as an iceberg bin system.

Table 1 - Circular Economy Strategy Approach

Pre-redevelopment Audit

In accordance with the GLA Circular Economy Principles, to assess the Proposed Development, the strategic CE approach must follow the methodology of the 'existing structures/buildings' Decision Tree, as shown in Figure 2, and for 'New Construction', as shown in Figure 3.

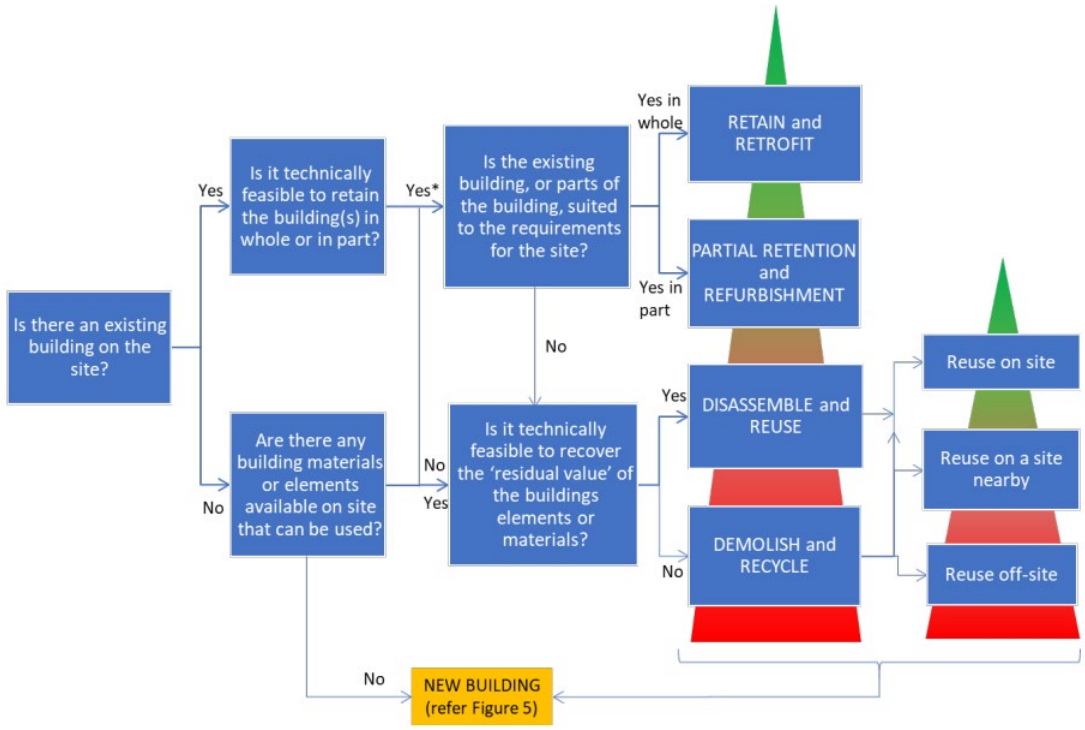


Figure 2 - Decision Tree for design approaches for existing structures/buildings (GLA, March 2022)[1]

It has been confirmed that no existing structures exist on-site. Hence, no demolition will take place for this project.

In addition to this, the circularity of the new building must be evaluated, following the strategic approach methodology for the 'new buildings, infrastructure and layers over the lifetime of development' Decision Tree (Figure 3). This approach encourages the consideration of opportunities to add value over the lifetime of the Proposed Development. It has been concluded by the Client and Design Team that the whole building is not designed to have a short building life, nor is it foreseeable that the building will need to change its function within its design life. Despite this, for all layers of the building, circularity must be considered. The opportunities for circularity are summarised within the 6 Circular Economy Principles, outlined in Figure 3 below. For the new construction at Stoney Wood, design for disassembly, adaptability, replaceability, longevity and flexibility have all been considered, as well as opportunities to maximise material reuse on/off site and the diversion of construction and municipal waste associated with the redevelopment from landfill either through reducing the quantity of waste produced, reusing waste materials, or sending said waste to recycling (reduce, reuse, recycle).

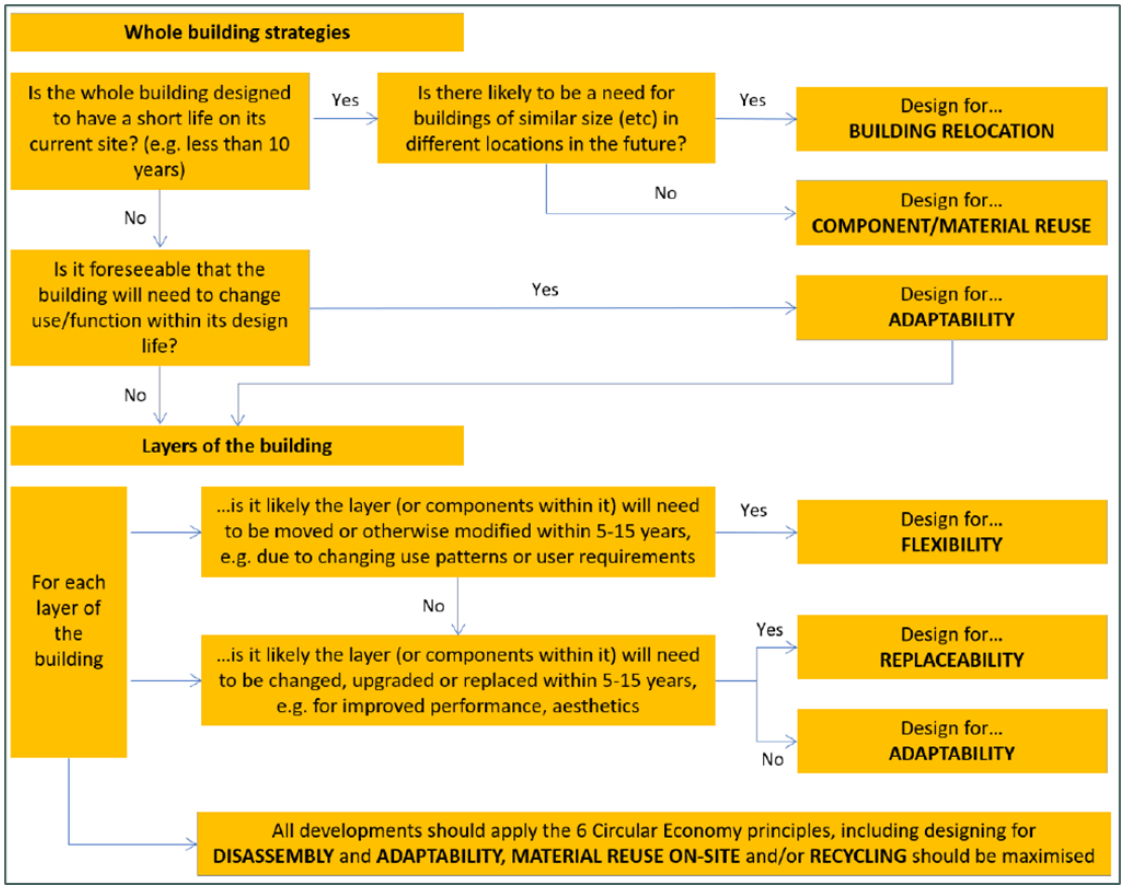


Figure 3 - Decision tree for design approaches for new buildings, infrastructure and layers over the lifetime of development (GLA, March 2022)[1]

In conclusion, the design approaches for the new construction, infrastructure and layers over the lifetime of development, have been considered and embedded in design considerations. Further details of this can be found throughout the report.

1.2 Project CE Key Aims

As aforementioned, the Proposed Development includes a new construction upon the site at Stoney Wood Quarter, the Fairway, London, NW7.

Through the Design Team Meetings and ongoing dialogue with both the Client and wider Design Team throughout the early design stage process, the following points have been established as key aims of the site redevelopment:

- Provide good quality residential units.
- Utilise off-site recycled crushed material (Type 1) for hardstanding and piling mat.
- Provide a robust building design which is constructed with longevity and adaptability in mind and an ease of disassembly and flexibility.
- Reduce environmental impacts through consideration of the construction type and process, in addition to the materials used. Environmental impact will balance material sourcing with the lifespan of the materials chosen.

Strategic Policy & Objectives

2.0 Strategic Policy and Objectives

The Proposed Development is required to meet the relevant planning requirements with regard to Waste and Circular Economy. These are summarised in Table 2.

Planning Policy	Requirement
The London Plan 2021	**Policy SI 7 Reducing waste and supporting the circular economy** Policy SI 7 states that referable applications should promote circular economy outcomes and aim to be net-zero waste. A Circular Economy Statement that meets the requirements set out in Policy SI 7 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 lower local thresholds for the application of Circular Economy Statements for development proposals are supported. In line with Policy SI 7, this is to be done with the aim of: 1. Promoting 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. Encouraging waste minimisation and waste prevention through the reuse of materials and using fewer resources in the production and distribution of products. 3. Ensuring that there is zero biodegradable or recyclable waste to landfill by 2026. 4. Meeting or exceeding the municipal waste recycling target of 65 per cent by 2030. 5. Meeting or exceeding the targets for each of the following waste and material streams: a. construction and demolition – 95 per cent reuse/recycling/recovery. b. excavation – 95 per cent beneficial use. 6. Designing 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. Circular Economy Statements will be required for all referable applications which set out how the Proposed Development promotes circular economy outcomes and the aim for net zero waste. Developers will be expected to reuse, recycle, or recover 95% of construction and demolition waste and find beneficial uses for 95% of excavation waste. **GG5 Growing a good economy** In line with GG5, those involved in planning and development will: a. Promote the strength and potential of the wider city region.

Planning Policy	Requirement
	b. Seek to ensure that London's economy diversifies and that the benefits of economic success are shared more equitably across London. c. Plan for sufficient employment and industrial space in the right locations to support economic development and regeneration. d. Ensure that sufficient high-quality and affordable housing, as well as physical and social infrastructure is provided to support London's growth. e. Ensure that London continues to provide leadership in innovation, research, policy and ideas, supporting its role as an international incubator and centre for learning. f. Promote and support London's rich heritage and cultural assets, and its role as a 24-hour city. g. Make the fullest use of London's existing and future public transport, walking and cycling network, as well as its network of town centres, to support agglomeration and economic activity. h. Recognise and promote the benefits of a transition to a low carbon circular economy to strengthen London's economic success. This will be done with the aim to conserve and enhance London's global economic competitiveness and ensure that economic success is shared amongst all Londoners.
Barnet Local Plan (2021–2036)	The Council is on a credible path to achieving net zero emissions and helping make London a zero-carbon city by 2050. The Council will abide to the Mayors work around designing for a Circular Economy and use the Mayor's energy hierarchy to help reduce carbon emissions from construction and operation and encourage retention and adaptation of existing buildings wherever practicable as well as encourage opportunities for on-site electricity and heat production, the use of innovative building materials and smart technologies. **Policy ECC03 – Dealing with Waste** The Council will encourage sustainable waste management by: a. promoting a circular economy through waste prevention, re-use, recycling, composting and resource efficiency over disposal. b. requiring developers to submit a Circular Economy Statement in accordance with London Plan Policy SI 7 and the North London Waste Plan. c. ensuring development is designed to provide appropriate space for storage and collection of waste and recycling facilities which fit current and future collection practices and targets. d. designating sites through the North London Waste Plan (NLWP) to meet an aggregated apportionment target across the seven North London Boroughs. These sites will be the principle locations considered suitable for waste facilities. e. safeguarding all existing waste facilities in Barnet, as set out in the NLWP. For any waste site subject to redevelopment for non-waste uses the developer must clearly demonstrate to the satisfaction of the Council that compensatory capacity will be delivered in line with the NLWP spatial framework principles on a suitable replacement site that must at least meet, and, if possible, exceed, the maximum achievable throughput of the site proposed to be lost. f. seeking to utilise additional waste capacity at Scratchwood Quarry as set out in the Schedule of Proposals

Planning Policy	Requirement
Global Sustainability Strategy	The World Commission on Environment and Development (WCED) report: Our Common Future[2], describes Sustainable Development as development that: *'Meets the needs of the present without compromising the ability of future generations to meet their own needs'.* This principle has guided national policy since the WCED report and continues to be the foundation to which 'sustainability' is embedded within processes of all industries, including construction and development. Over the years, the policy requirements have become more prescriptive in nature, with targets on CO_2 emissions and resource use being tightened through Policy and Regulation changes as the UK moves towards zero carbon by 2050. Changes to regulations gradually aim to allow industry to adapt to new methods, whilst challenging industry leaders to provide innovative services, technologies and other solutions to meet the ever-stricter demands. Whilst sustainable principles are key to ensuring the reduction of pollution and CO_2 emissions (the main cause of anthropogenic Climate Change) their primary aim is to ensure that future generations have the same, if not better ability to meet their needs than the current generation. As such, wider aspects must be considered when looking at sustainability 'in the round'. In line with the London Plan Circular Economy Guidance (March 2022)[3], the Proposed Development will aim to be net zero-waste during its life cycle.

Table 2 - Summary of Planning Policy requirements

[2] The World Commission on Environment and Development (WCED): Our Common Future. Available at: https://tinyurl.com/5755abum
[3] Mayor of London – London Plan Guidance – Circular Economy Statements. Available at: https://tinyurl.com/yckx9akr

Environmental Assessment & WLC

3.0 Environmental Assessment & Whole Life Carbon

A Whole Life Carbon Assessment (WLCA) has been undertaken in accordance with the 'RICS Whole Life Carbon Assessment for the Built Environment' to establish the Whole Life impact of the proposals in relation to embodied, operational and end of life CO_2 emissions. The assessment outlines the process of WLCA, and what is / what is not included. The aim of the RICS document is to provide clarity on the British Standard EN 15978: 2011 Sustainability of Construction Works, for the sustainability assessment of buildings, and the approach required within this methodology.

The aim of this assessment has been to model the whole life carbon impact of the proposed design, with the results used to inform the Circular Economy criteria of the London Borough of Barnet and the GLA planning policy guidance.

Overall, the Proposed Development has shown considerable effort in reducing the embodied and operational CO_2 emissions associated with its construction, with initial calculations showing an embodied and operational carbon as follows:

Module	WLC benchmark (kg CO_2e/ m^2 GIA)	Aspirational WLC benchmark (kg CO_2e/ m^2 GIA)	Result for this development
A1-A5 (excluding sequestration/ biogenic carbon)	<850	<500	472
B1-B5, C1-C4 (excluding B6 & B7)	<350	<300	555
A-C (excluding B6 & B7, including sequestration)	<1200	<800	838

Table 3 - Comparison of results with the GLA WLCA benchmarks

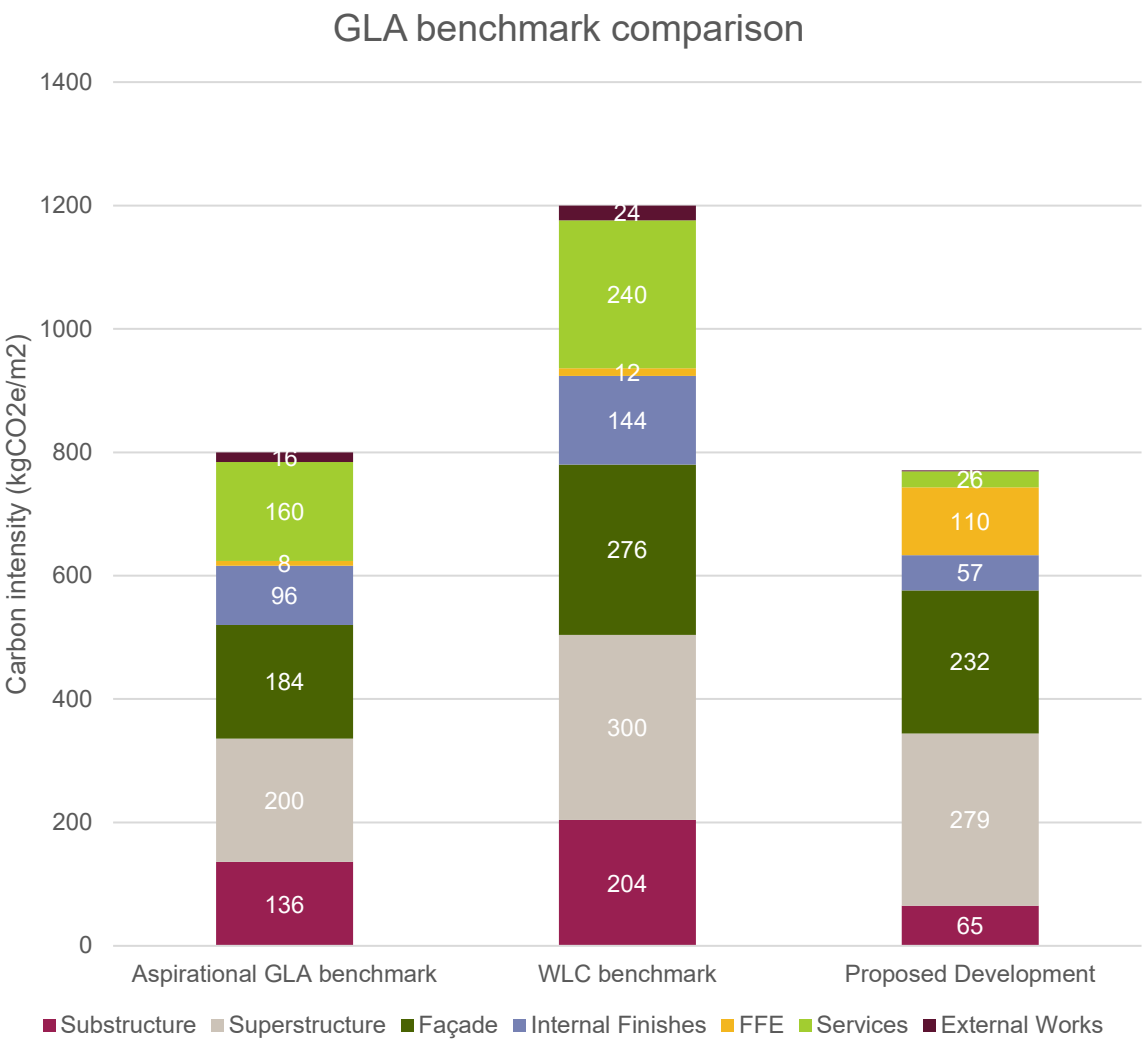


Figure 4 - Comparison of the Proposed Development's Carbon Emissions against GLA Residential Benchmarks

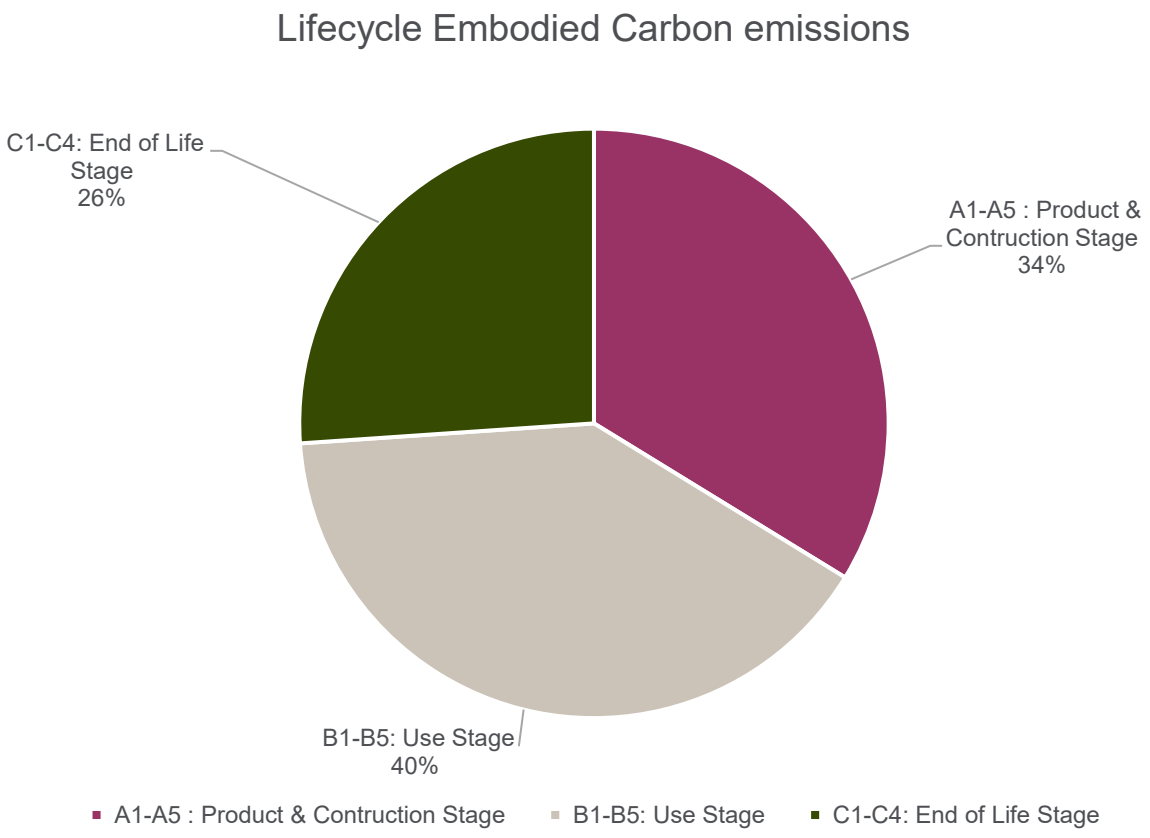


Figure 5 - Embodied Carbon emissions over lifecycle stages

Please see the supporting WLCA report for full details.

Circular Economy

4.0 Circular Economy

The circular economy ethos is driving the move away from a ‘Take – Make – Use – Discard’ economy to a ‘Re-make and Use Again’ economy.

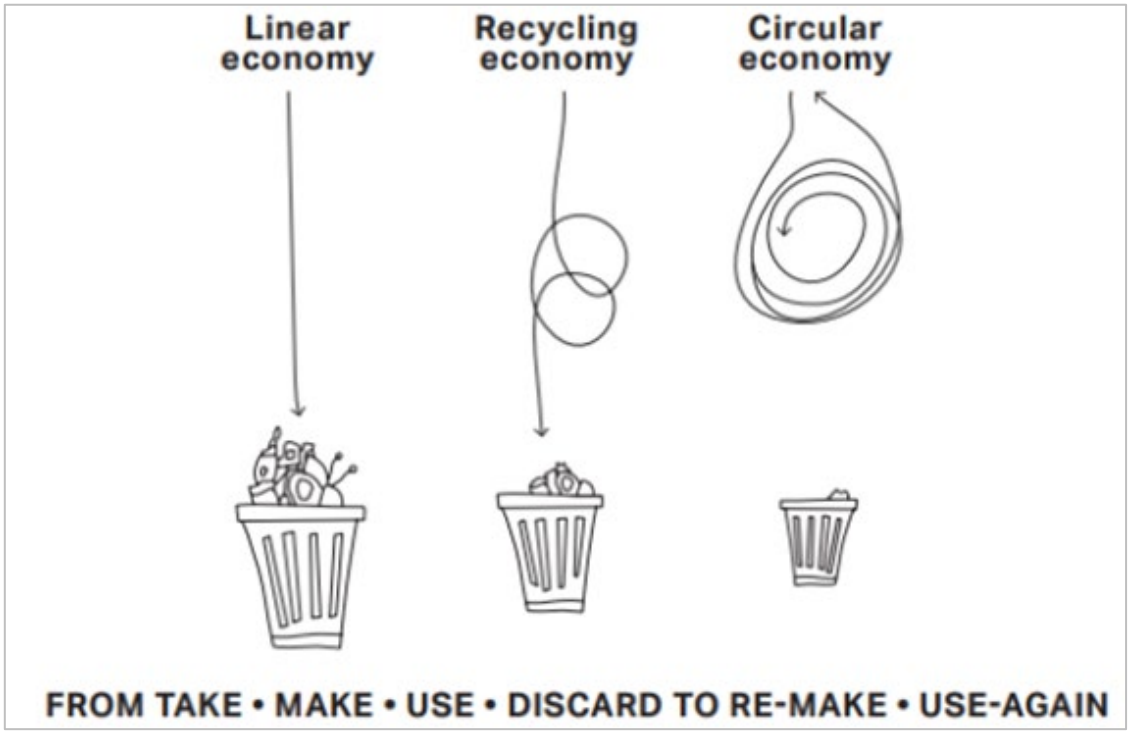


Figure 6 - Linear, Recycling and Circular Economies Diagram (GLA, March 2022)

As part of circular economy considerations, developments should aim to:

- Design out waste – consider impacts of waste from both construction, operation and end of life.
- Design for longevity – appropriate material specification for intended use.
- Design for adaptability and flexibility – meeting present and future needs within the building form and providing potential for the building form to be repurposed at a later stage.
- Design in layers – applying appropriate materials within the building layers which will allow them to be easily replaced when required, dependent on lifespan.
- Design for the future – individual products and services to be ‘loose fit’ to allow easy upgrade and replacement.
- Select appropriate materials – specifying low impact, recyclable and where possible, reused materials which have minimal impact on the environment and health & wellbeing.

For the construction industry, the impacts to the circular economy can be categorised into the following sections:

- Demolition and reclamation
- Design and construction impacts
- Site waste and its management
- Operational waste storage
- End of life disassembly and re-use

Impacts such as anticipated waste arisings at each of these stages are required to be considered and mitigated as much as possible to ensure that the impact is minimised, and materials are fed back into the supply chain to be re-used.

4.1 Design and Construction Impacts Assessments

The design of the Proposed Development prior to the specification of sustainable materials and construction methods has adopted an ethos of a 'circular' design which embraces the key sustainability concepts of longevity, adaptability and flexibility.

4.1.1 Longevity

A key element of circular economy is enhancing and extending the lifespan of a building - ensuring the durability of all materials will reduce the need for replacements and repairs and enhance the sustainability of the scheme as a whole through the promotion of resource efficiency. This is achieved through the appropriate specification of materials to secure a durable finish appropriate for its intended use. Materials which are not fit for purpose, or with inherent redundancy counter this approach and have been avoided within the design of the Proposed Development.

Material finishes both internally and externally have been chosen and evaluated to ensure a durability of finish appropriate for their intended use. Areas of high wear will be investigated further at the detailed design to ensure that, where needed, adequate protection is factored into the construction – i.e., materials are within an area sufficiently robust for the area's use.

Communal entrances, bin stores, core areas, corridors and communal spaces are all areas of high wear that will need a finishing strategy beyond that of exposed finishes. Therefore, a materials analysis will be undertaken to ensure materials are correctly specified based on the type of use expected and the damage to the material surfaces that may take place.

A durability strategy has been discussed, and a schedule of materials choices will be developed where fit-out is to be undertaken as part of the overall site development.

Ensuring the durability of all materials will reduce the need for replacements and repairs and enhance the sustainability of the scheme as a whole through the promotion of resource efficiency.

Besides human factors, external materials will also suffer from environmental degradation. Material finishes on the external elevations have been chosen for their hardiness in addition to their architectural and construction qualities.

Façade options have been explored, and current design is a double skin wall from brick, with glazing that will introduce sufficient natural light to the residential units. These materials have been chosen for their hardiness and longevity, in addition to their architectural and aesthetic properties.

Concrete has been proposed as it's a long-lasting material and is easily procurable. All concrete specified in the construction is proposed to be procured as locally as possible, with at least a 20% recycled/secondary aggregate content. The reinforced steel bars (re-bar) are produced from high % (>97%) recycled content and offer ease of re-use and recycling at End of Life (EoL) stage.

The client does not anticipate that the building will require re-purposing or requiring a change of use throughout its lifetime. However, concrete offers a great potential for crushing and re-use at the EoL stage.

4.1.2 Adaptability

The ability of spaces to adapt to present and future needs is key to securing long-term tenure within a property, creating established communities in addition to preventing the need for people to move house when circumstances change – putting pressure on housing stocks, care systems and potentially in turn promoting further development which could be unsustainable in the area.

The client does not anticipate that the building will require re-purposing or requiring a change of use throughout its lifetime.

The use of a reinforced concrete framed construction is a key factor on ensuring that the internal space remains as flexible as possible in the future, allowing the internal layout to be repurposed in the future to meet changing local needs.

The infill structure of the development will be made up of insulated dry-lining partitioning walls within and between adjacent flats and communal spaces, reinforced with metal studwork. These flexible structures can be easily disassembled and adapted throughout the lifetime of the Proposed Development, enabling the accommodation of any alterations to the purpose of spaces available within the building. Furthermore, at the end of the building life, a metal framed drywall partition will be more easily demountable and recyclable/re-usable allowing the differing elements to be separated (steel, plasterboard and, insulation) and disposed of appropriately.

4.1.3 Flexibility

The flexibility of a space allows differing applications to potentially use the current structure in the future.

Given the piled reinforced concrete foundations and substructure, there is limited flexibility within this dimension of the build. As such, these elements are likely to remain in future builds. However, there is flexibility within each block to allow it to fit the needs of the occupiers.

Moreover, the need for this has been largely designed out with flexibility built into the design, as each block has adequate space for minor alterations to allow the space to fit the needs of the users – each residential-like unit is designed to be open-plan other than the installation of the bathroom stud walls. This provides flexibility of choice without additional major demolition or construction works for the occupier.

4.2 Sustainable Procurement

As part of the procurement process, the use of materials with a high recycled content and/or locally produced will be investigated. In addition, the use of the suppliers and manufacturers with a certified Environmental Management System will also form a key part of the procurement strategy. These commitments to be upheld on site by the Principal Contractor once appointed (see tender commitment letter in Appendix A).

The design specification and procurement of lower impact construction products will be enhanced through the use of Environmental Product Declarations (EPDs) on all key materials

designed and procured as part of the Proposed Development. As an EPD is an independently verified environmental label in accordance with the requirements of ISO 14025, the reduced risk and environmental impact from poor supplier information will be avoided within the design and construction stages.

High recycled content is likely to be used for non-structural elements where the material content is less critical to the structural integrity of the project as a whole.

Internal finishing elements – where structural considerations are not applicable – will be sustainably sourced where this is not detrimental to the overall finish and quality of the products used.

Furthermore, as outlined above, >95% of all materials will be sourced from responsible suppliers, with >95% materials used also being non-toxic to avoid localised pollution.

Materials with a high content of recycled material will be prioritised within the procurement process to secure ongoing carbon savings and strive towards the GLA target of the specification of building materials made up of 20% recycled content. These materials have been specified in support of the reduction of embodied CO_2 emissions, with the materials specified outlined within the Whole Life Carbon Assessment.

Building In Layers

5.0 Building in Layers

The Proposed Development has been designed to be robust in its construction type to prolong building longevity, whilst being sensitive to the overall aims of reducing on-site embodied carbon emissions in line with national and regional policy.

Additionally, in line with the GLA March 2022 Circular Economy guidance, the proposed design has adopted a 'Building in Layers' approach, maximising the durability of the Proposed Development whilst considering the whole life carbon impact of materials and processes.

To this end, it is anticipated that a minimum of 31% of the materials utilised within the Proposed Development will be 'Circular by Design', allowing elements to be removed and reused elsewhere when needed. The One Click 'Building Circularity' analysis from the WLC Assessment has indicated a circularity of the Proposed Development materials to be 31%. The materials hopefully re-used on site from the demolition will increase the circularity of the Proposed Development.

Building in Layers is a common method of assessing the validity of certain material types and proposed lifespan of these materials. Assessments can then be made as to the appropriateness of the materials and finishes adopted, and any potential reclamation that may be possible at end of life.

Building in Layers puts all elements of a building into a timeline with various life expectancies, and therefore the likelihood of renewal or replacement can be gauged, and an appropriate strategy used to mitigate any potential predicted issues in relation to the products, materials and finishes used.

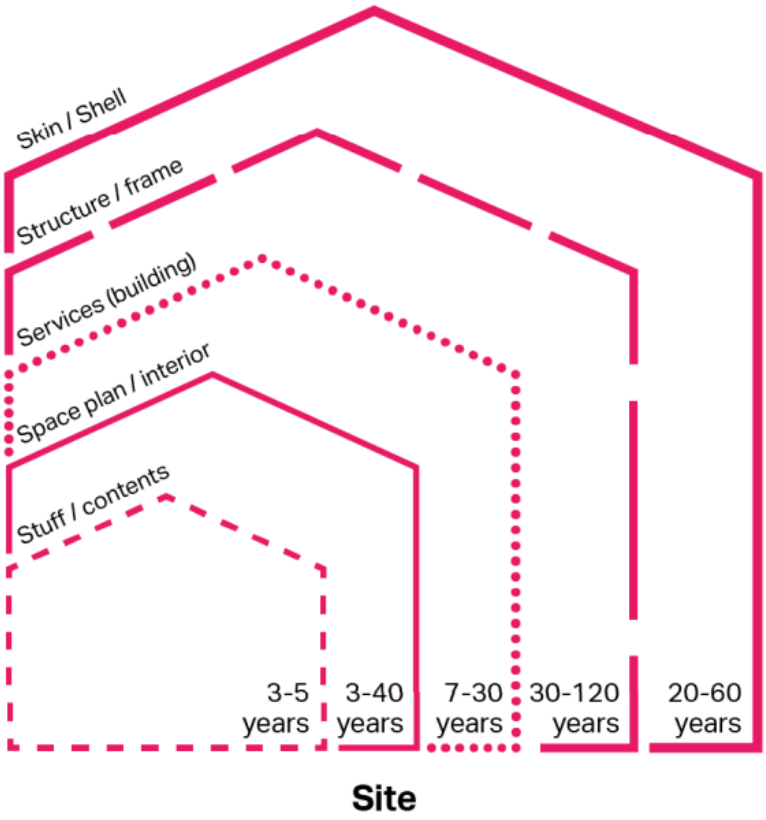


Figure 7 - 'Building in Layers' diagram and their indicative lifespans (GLA, March 20223)

STUFF: Including all furniture, desks, pictures, appliances, lamps, etc., which are typically supplied by the building user. Typical Lifespan: months/few years

Any appliances to be installed as part of the minor reception fit-out will be chosen with reliability, energy use, and environmental impact in mind. All appliances will be highly rated for energy efficiency and water use to ensure ongoing running costs are kept to a minimum. Based on the new Energy Efficiency Labelling scheme introduced from March 2021, a good performing appliance will meet the following ratings:

- Fridges/Freezers: E
- Washing Machines: B
- Dishwashers: D
- Washer-Dryers: D

The Project Team has confirmed that the above standards are achievable for the development and appliances will be carefully researched before specification. When purchasing appliances, resources and reviews in relation to usability, reliability, and cost of running will be consolidated and discussed within the Project Team to ensure that environmental impacts of proposed white goods are continually considered.

SPACE: The internal layout of the site is to be considered to provide durable and long-term space, with the potential for adaptability as use circumstances change. Typical Lifespan: 3-30 years

It is not proposed that the residential units will require a change of use or design throughout the building's lifetime, therefore a concrete frame for longevity was proposed.

Being a framed construction, internal spaces are easily adaptable where needed in the future to accommodate changes in lifestyle, well-being, or occupant density.

Framed internal partitions also allow each individual element to be removed as a whole (steel studwork, plasterboard, insulation etc) rather that the cutting, bashing and grinding associated with the fabric removal in more traditionally constructed co-living units.

Internal floors and walls in core areas shall be durable and designed to minimise risk of damage, for example through hard wearing floor finishes and kick plates to doors.

SERVICES: Heating, Ventilation and Electrical installations. Typical Lifespan: 7-15 Years

The Project Team confirmed during the Circular Economy Workshop that an MEP contractor has not yet been appointed, but that some pre-emptive assumptions have been made relating to the MEP strategy for the Proposed Development. Below is a summary of the currently assumed ventilation, heating, and cooling measures to be installed. This list may undergo alterations in future when the MEP contractor is confirmed and as a result of the recommendations detailed in the Energy Statement to be produced for the Proposed Development.

- Mechanical Ventilation and Heat Recovery (MVHR) is to be installed within the residential units.
- Comfort cooling (Natural ventilation) is to be used throughout the development.
- Mechanical cooling using hybrid MVHR add-on units is proposed.
- Anticipated that the plant room is to be located on the ground floor.

- Installation of an Air Source Heat Pump has been considered for heating of the development (cooling of up to 10 degrees).
- A Solar PV panels system will be installed.

The use of Mechanical Ventilation with Heat Recovery (MVHR) will provide air changes whilst maintaining internal temperatures and reducing heat losses.

All plants installed will be designed to be removed in its entirety, without the need to dismantle prior to removal, allowing this to be removed and replaced easily in a modular manner. Access to these plant spaces will be appropriately sized to allow equipment to be removed and replaced, with the size of door openings and corner access for these items also properly considered at Detailed Design Stage.

STRUCTURE: Structural Elements. Typical Lifespan: 30-300 years

Ready-mix concrete piling, caps and ground floor with steel re-bar have been specified. A reinforced concrete framed structure has been chosen for both the ease of construction, ability to use recycled content and for longevity of the Proposed Development. A perk to using concrete for structural elements, is the ability for it to be crushed and reused as secondary aggregate as part of a new development or recycled/reused off-site. Additionally, the steel re-bar and framework can be removed and recovered due to steel being a widely recyclable material during the EoL process.

This construction will provide a durable and long-lasting building structure which will last beyond its anticipated 60-year lifespan and will have the potential to support a multitude of future uses if/when the need arises. Whilst there is no Heat Network currently available, a space has been provided for future connection if one becomes available.

SKIN: Cladding, Renders, and Brickwork. Typical Lifespan: 30-300 years

External finishes often have the biggest impact on the overall durability of a development. They are exposed to the weather, are subjected to less routine maintenance and activities surrounding these elements and are generally less managed when compared to internal surfaces. The wrong specification of materials can result in reduced lifespan, increased maintenance, and a poor appearance to the exterior of the building, resulting in lower asset prices and less desirable properties.

The red brickwork facade has been chosen for longevity purposes, albeit it is recognised that the recovery of this element can be troublesome due to the separation of the mortar from the brickwork at end-of-life stage. However, due to the nature of the material, it is anticipated that this will not be required until the building reaches its end of life. Mineral wool insulation and plasterboard provide an efficient insulation system. This build up withstands minimal degradation over time.

Moreover, natural insultations (i.e. Rock/mineral wool) and gypsum plasterboard provide an efficient insulation system and are both widely re-usable and recyclable at EoL.

SITE: Location, boundaries, surrounding context, Typical Lifespan: Infinite

The site location is the one element of the Proposed Development that will last forever. Long after the current buildings have been decommissioned and replaced, the site will remain only to be redeveloped again to form something which will meet future generation's needs.

The site location has been deemed appropriate for the intended uses as this is in keeping with the surrounding context of existing recent development in the area.

Being located within the London Borough of Barnet, which is a heavily developed area, the proposals fit the aesthetic and current use classes of the surrounding area, and as such will 'blend' with other recent developments.

Materials on the site will be non-toxic, and no material used on the site will prevent the site's future use or redevelopment.

5.1 Site Waste Management

Site waste will be managed on site through a Site Waste Management Plan (SWMP). The SWMP emphasises the need to minimise waste leaving site and the reuse of materials on the site in line with the waste hierarchy, depicted in Figure 8 below. Waste from the site will be managed via a certified waste contractor and will be monitored through best practice site management procedures.

To comply with the GLA guidance on Circular Economy, the Recycling and Waste reporting table (0) will be completed and is referenced within the Site Waste Management Plan for module stages A to C (the product sourcing, use and end of life stages). This will cover:

- The total amount of non-hazardous/contaminated waste material arising (tonnes) for excavation, demolition and construction
- The percentage of non-contaminated material reused on-site, recycled on-site, reused off site and recycled off-site
- The percentage of waste sent to landfill amount
- The percentage of waste recovered
- Clearly defined targets that meet the London Plan and Barnet Council policy targets:
    - >95% reuse/recycling/recovery of construction waste
    - 95%beneficial use of excavation waste
    - 65% recycling of municipal waste by 2030
    - Apply a commitment to the London Environment Strategy business waste recycling target of >75% (by weight/tonnage) by 2030

Targets that go above those set by the London Plan policy SI 7(A) will also be sought where possible. The quantity of waste diverted from landfill will be in accordance with Appendix A (Circular Economy Commitments), as a minimum, with the overall aim that the development will be net zero waste, with all waste either being re-used on site or recycled via a licenced waste contractor. Regular reports (minimum monthly) will be provided by the waste contractor and stored as part of ongoing site monitoring and management. Where deviations from the zero-waste strategy become evident, actions will be organised to ensure that the zero-waste strategy is adhered to.

In accordance with the principles of the London Plan and Barnet Council, all waste on site will be managed in accordance with the waste hierarchy, with a target for 0% of biodegradable and/or recyclable material being sent to landfill.

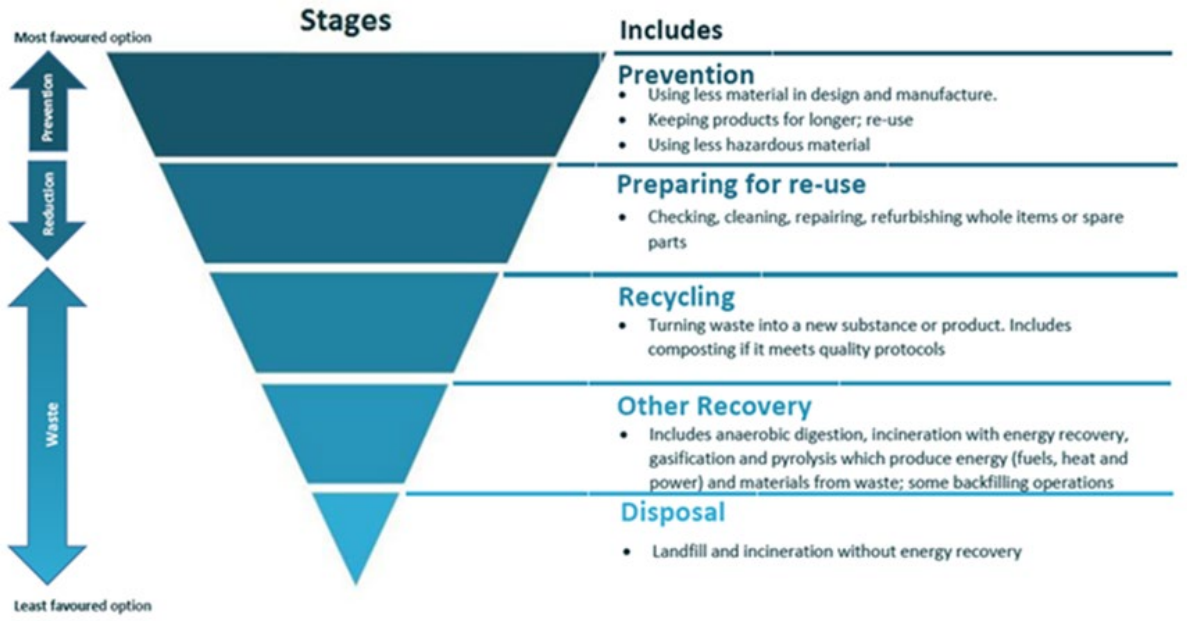


Figure 8 - The Waste Hierarchy

Where waste must be removed from site and is not re-usable, this will be managed through a licenced waste contractor in line with the benchmarks for diversion from landfill set out in the London Plan policy SI 7(A) as an absolute minimum.

To facilitate the re-use of materials on the site, appropriate areas will be allocated within the Construction Works Plan, and detailed in the associated method statement, for the storage of re-usable materials from the construction phases. The aim of this materials storage will be that this material can be used elsewhere on the site and reduce the waste removed from site.

Excavation is to be undertaken on the site during enabling works to install piled foundations suitable for the proposed construction. No demolition will occur on-site.

5.2 Site Resource Use

5.2.1 Energy Use from Site Activities

The Design Team has confirmed that an Energy Champion will be selected from the beginning of site works who will be responsible for the monitoring, cataloguing, and reviewing of site wide energy use. This is likely to be the Main Contractor, and they will be informed of this requirement pre-appointment, during the tender process. Appendix A contains a commitment letter from the Project Team, confirming that the Main Contractor will be informed of this responsibility.

Targets for energy use throughout the construction program will be set based on previous experience, with the actual usage tracked and reported twice weekly – Appendix B includes workshop meeting notes confirming the Project Team's commitment to monitoring energy, water and waste throughout the construction phase, operational monitoring, and a tender commitments letter from the Client confirming that a Resource Management Plan (containing targets for energy and water usage, waste production and the transport of materials and waste) will be produced for the development by the Principal Contractor. These records of

energy usage will then be fed back to the Site Manager who will work with the Energy Champion to reduce energy use to the lowest possible rate.

Energy Efficiency will be a significant part of the Site Induction Process with each member of the site team accountable for the enforcement of energy efficient measures, with a reporting structure in place for non-compliance.

Where possible, strategies and technology will be utilised throughout the site to reduce energy consumption such as:

- Enhanced building fabric in line with Building Regulations 2021 Part L
- High efficiency LED lighting with PIR automatic on-off controls and daylight sensors
- MVHR to provide ventilation
- High efficiency VRV system (air-to-air heat pumps) to provide heating and cooling to reception, apartments and kitchen, with cooling only in the server room
- Air Source Heat Pump for water heating

5.2.2 Water Use from Site Activities

As with energy use above, the Principal Contractor appointed will champion the water saving efforts on the site and record and monitor water use throughout the duration of the project.

Targets will be set for water use based on best practice and previous experience, with records kept at a minimum of weekly intervals to inform ongoing saving measures and for evidence of commitment to this goal). Key information on the saving of water resources will be provided as part of the induction to site for all operatives.

Reporting systems will be in place for the wasting of water, and each member of the site team made accountable for the enforcement of water efficiency measures.

Water use for welfare will be reduced through the use of no water, or low water use urinals, and low flow fittings where this is appropriate. PIR and solenoid valves will also be installed where this is considered to be appropriate and effective in reducing water consumption.

5.2.3 Waste from Site Operations

The use of single use plastics will be avoided through the provision of the following welfare facilities to encourage a more sustainable and low waste operations on site:

- Chilled, fresh water made available to all, with re-usable cups or bottles – to avoid the use of single use plastic bottles.
- Refrigeration – appropriate facilities available for the storage of food and other items which would otherwise be bought – reducing the associated packaging.
- Kettle & mugs to be provided to prepare tea and coffee – reducing the need for take-aways in disposable cups.
- Appropriate wash-up facilities to wash and re-use the mugs and cups provided.

The potential for the incorporation of the above will be dependent on the precise site welfare facilities available at each construction stage, but as much as practicable will be incorporated where possible.
The precise details of the facilities to be provided will be outlined in the Contractors Construction Works Plan.

5.3 Operational Waste

The ability of the occupier and/or building users to appropriately sort and store waste as part of the general operation of the self-storage facility is strongly influenced by the location and ease of access to the internal and external waste stores provided.

Therefore, the appropriate storage of refuse and recycling - both internal and external - will be incorporated into the overall design and layout of the scheme to facilitate a recycling rate of 65% or greater, in line with GLA requirements.

The developers are to ensure waste containers are utilised efficiently in order to reduce the number of collections and therefore collection vehicle traffic. To avoid obstruction to the local highways, a stopping space will be allocated to allow the collection vehicle to stop adjacent to the site. It will also be ensured that at no time bins will be left on the public highway.

5.3.1 Operational Waste Management Plan

The developer needs to recognise that waste will be generated by the site's future tenants and therefore will take measures to ensure that this takes place as responsibly as possible. The waste hierarchy will be promoted and explained to the client to ensure that waste generation is minimised. Once all avenues for prevention have been examined, opportunities to maximise for re-use, recycling and recovery will be targeted.

The provision of information on the ability of occupants to recycle items is shown to strongly increase recycling uptake. Therefore, information on the waste bins provided, what can be placed in each bin, where larger items can be taken and when, will be provided to building users to inform their waste decisions during the operational phase of the development. A Welcome Pack provided to all new residents will include clear and accessible guidance on the waste segregation system, bin locations, collection days, and what materials can be recycled Illustrated signage will be affixed to each bin inlet point, indicating which materials should be deposited.

Figures of expected operational waste generation will be continually managed and reported to ensure that waste storage is of an adequate size to support the needs of the building occupants and maximise potential recycling levels. Sensors are equipped to the iceberg bin system to see waste levels within each of the bins and consider where additional provisions are required.

While operational waste generation is dependent on tenants, the approach taken by the developer will maximise the opportunities for tenants to make suitable and responsible choices in order to lower their waste generation while maximising the percentage of waste which is recycled. Detailed Operational Waste Management Plan is included under Appendix G.

5.3.2 Operational Waste Storage

To ensure this is possible, the site will provide adequate, flexible, and easily accessible space for segregating and storing waste for collection, recycling, and reuse in line with the London Plan. This will ensure that waste can be sorted and stored suitably between collections and will be explained to the future tenants. In addition to this storage, there will be a dedicated area for food waste with bins provided in tenanted areas and kitchens. The project will incorporate an iceberg bins system, 5,000 litres capacity for each bin, to allow for storage between collection times.
In addition, consumables within the buildings – furniture, decorations etc. – are not within the control of the contractor. These items, in accordance with the Building in Layers methodology,

have the shortest lifespan and have a significant impact on the quantity and type of waste generated by the Proposed Development during operation. Therefore, further information on the impact of waste disposal, with a focus on the use of natural, biodegradable products will be provided to building occupiers, in addition to information about reusing, repurposing, and upcycling to minimise the quantity of consumables being sent to landfill.

5.4 Maintenance Replacement and Repair

Throughout the lifespan of a development, elements of the build will need to be replaced and/or repaired as part of general maintenance as elements are damaged or reach the end of their natural lifespan.

In accordance with the Whole Life Carbon Assessment undertaken for the site, it is estimated that the maintenance repair and replacement of building elements (calculated under the B2, B3 and B4 RICS lifecycle stages) accounts for 15,395,021 $kgCO_2e$ of the buildings predicted 60 year life span.

Carbon which is expended here results in savings from other areas and repair, replacement and maintenance allow the life of items to be extended. Maintenance is included as the other CO_2 emissions associated with such repair work, including products such as cleaning supplies, labour and travel emissions.

Estimated factors for Module B Construction Waste are driven by the expected lifespan of each material, as modelled in OneClick LCA. Table 4 shows detailed calculations for a sample of materials with different lifespans, to demonstrate the basis of Module B Construction Waste calculations.

Material	Lifespan	Number of Replacements	Construction Waste - Module A	Construction Waste - Module B*
Ready-mix concrete	60	0	5%	0%
Reinforcement steel (rebar)	60	0	5%	0%
Gypsum plasterboard	30	1	12.5%	12.5%
Aluminium framed curtain wall	35	1	0%	0%
Wooden interior doors	20	2	0%	0%
Suspended ceiling systems	25	2	7.5%	15%
Roofing clat tile	60	0	5%	0%
Synthetic carpet tiles	7	8	10%	80%
Electric vertical radiator	20	2	1%	2%

**number of replacements x Module A*

Table 4 - Module B Construction Waste calculation sample

5.5 Material Recycled Content

Outlined below are the major, predominant building elements and materials included within the Proposed Development based on the currently assumed build outs for all elements, with predicted re-use and recycling values.

Element	Material	Predicted quantity (kg)	Gross intensity (kg/m²GIA)	Recycled Content (% by value)
Substructure	Steel reinforcement	856,749	29	97%
Superstructure	Steel reinforcement	1,219,836	31	97%
	Ready-mix concrete, RC 40/50, 25% (GGBS)	11,446,631	291	2%
Upper Floors	Glass wool insulation	114,406	3	50%
	Steel reinforcement	603,014	15	97%
	Profiled & Galvanised steel decking	30,472	1	70%
	PVC floor covering	25,363	1	15%
Shell	Gypsum plasterboard	229,336	6	25%
	Aluminium façade cladding panel	64,832	2	70%
Space	Concrete masonry unit	2,916,005	74	22%
	Gypsum plaster board	866,340	22	50%
Furnishing	Several Wood Products	172,459	5	50%

Table 5 - Major construction materials and their recycled content

Recycled and reused content has been calculated in accordance with the methodology set out in Appendix 3 of the GLA Circular Economy Guidance. Material quantities have been extracted from the OneClick LCA whole life carbon model, which references a mix of Environmental Product Declarations (EPDs) and industry database defaults to determine the recycled content percentage for each material. Where EPD-specific data is available, this has been prioritised; where EPDs are not available, OneClick LCA database default values have been applied as a conservative estimate.

Recycled content by mass has been calculated by applying the recycled content percentage to the total material quantity for each element. Recycled content by value has been calculated as a cost-weighted proportion across all materials, using estimated unit costs aligned with current market rates, as per OneClick database. Where the cost per unit was not available in OneClick database, average market research was obtained. Appendix E presents the detailed supporting calculations for all materials with recycled content, which are included within the Bill of Materials.

5.6 End of Life Disassembly and Re-Use

The end-of-life opportunities for material recovery have been investigated as part of the design process with the requirement for disposal, recycling or repurposing considered as a key part of product and material selection.

The implementation of a materials inventory will be investigated by the Design Team to itemise all materials and/or products to be used, and the potential for these materials to be re-used, repurposed, recycled or otherwise disposed.

Internal fixtures, fittings and equipment are those with the shortest lifespan, and therefore the replacement of these should be considered as a high priority, and materials which are biodegradable or highly recyclable taking precedent over alternatives to minimise the impact of the more consumable items within the Proposed Development.

The consideration of the materials used on the site have been selected on multiple basis including the potential for re-use at the end of the building's useful life. Where sustainable options are not possible or available, high quality and durable materials are selected to ensure a long and maintenance free lifespan of the building, with appropriate elements being easily replaced or repaired where needed.

The end-of-life scenarios of key components and materials have been further considered, with the design seeking to maximise reuse and recycling wherever practicable. In particular, the proposals aim to support disassembly and material recovery through the use of standardised component sizes, mechanically fixed rather than permanently bonded connections, and a clear structural and façade grid that reduces the need for custom cutting and complex dismantling.

More specifically, the design can facilitate end-of-life outcomes through the following strategies:

- Bolted or screw-fixed connections to primary structure, façade elements enabling removal and reuse.
- Modular and standardised elements, such as repeating structural bays, prefabricated panels, and standardised finishing systems, to simplify replacement and recovery.
- Design for access, ensuring plant, risers, and MEP equipment are located and detailed so they can be safely removed, refurbished, or replaced.
- Avoidance of composite or heavily bonded assemblies where they would impede separation of materials.
- Material selection favouring widely recyclable products, such as steel, aluminium, glass, and timber, with recyclable insulation and finishes where feasible.
- Clear separation of material layers, so that structure, cladding, services, and internal fit-out can be dismantled independently.
- Provision of documentation such as a materials log or "resource passport" to identify components, fixings, and recovery routes at end of life.

The predominant construction materials on the site are concrete and brickwork – all of which are potentially re-usable when the building reaches the end of its life. At present, it is estimated that ~31% of the materials used on site will be reusable, but the primary focus has been on providing a robust, durable, and long-lasting building structure. Brickwork is to be unrendered, therefore minimising the effort required to clean up the product at end of life.

It is also anticipated that, in line with the March 2022 GLA benchmarks, the Proposed Development will meet the following targets for diversion from landfill: 95%

reuse/recycling/recovery of construction waste, 95% beneficial use of excavation waste, and 65% recycling of municipal waste, with all waste sorted into the key EU waste groups.

Concrete foundations are the least re-usable element of the scheme. Piled foundations can reach up to 20m into the ground and will not be easily extractable or recoverable. However, these could well form the foundation for any other structure on the site if there is desire for a refurbishment or other use at the end of the life of this building. Concrete is inert and non-toxic in nature, and therefore the presence of these in the ground causes little-to-no lasting impacts.

Outlined below are the major, predominant building elements and materials included within the Proposed Development based on the currently assumed build outs for all elements, with predicted end-of-life scenarios and circularity.

Category	Total kg	Virgin %	Materials Recovered %	Downcycling and use as energy %	Recycling and reuse as material %	Materials returned %	Circularity %
Concrete	51,375,276.63	98.06	1.94	100	-	50	25.97
Metal	2,727,024.02	5.48	94.52	-	100	100	97.26
Bricks and ceramics	729,082.1	100	0	100		50	25
Gypsum-based	3,004,246.98	84.8	15.2	60.53	39.46	69.73	42.46
Insulation	453,637.48	76.79	23.21	49.86		24.93	24.07
Glass	822,964.67	90.5	9.5		100	100	54.75
Wood and biogenic	1,124,547.7	3.15	96.85	100		50	73.42
Earth masses and asphalt	786,663.45	99.22	0.78	32.8	3.9	20.3	10.54
Other materials	846,059.19	67.28	32.72	57.11	40.06	68.61	50.67

Table 6 - Major construction materials and EoL (End of Life) strategy

The physical constraints of the site and the high density of the building (floor area to footprint ratio) mean that the volume of materials used within the Proposed Development will exceed the volume of materials that are able to be re-used on site. Therefore, the majority of materials will need to be recycled off site by a licenced contractor at the time of dismantling/demolition.

The concrete and asphalt materials are easily recyclable at EoL through crushing and use as recycled content and secondary aggregate for future building materials. The steel re-bar will have recycled quantities of >97% and has full EoL recyclability potential. Materials such as the gypsum plasterboard, will need to be recycled off site by a licenced contractor at the time of dismantling/demolition, for reuse. Insulations, from natural substances, will most likely be segregated and diverted from landfill through re-use elsewhere or through energy recovery. Brickwork could either be reused on other sites or crushed and used as recycled content.

Strategy for Implementation

6.0 Strategy for Implementation

6.1 Existing Site

Following a Circular Economy workshop with the Design Team, it was confirmed that no demolition will occur on-site.

6.2 New Development

The Proposed Development of the site will follow best practice in terms of building design, construction methods and operational energy (and therefore CO_2 emissions) requirements. The proposed building design will be designed with the Building in Layers methodology in mind and refined throughout the building process to enhance its efficiency.

The application of the Building in Layers strategy and circular economy principles will continue to be embedded within the future design process and will assist in the refinement of the overall site design and its efficiency. The circular economy ambitions outlined within this statement will be embedded within the future brief for detailed design and construction.

The engagement of key stake holders will continue to be required throughout the design process, and the materials procurement, and waste management. Consultation and engagement with Circular Economy principles has been and will be sought from the following team members:

- Principal Contractor and supporting team (estimators etc)
- Architect
- Structural Engineer
- Waste Consultant
- M&E Consultant
- Client

Please note that the above list is non-exhaustive and input from other members of the team may be required at key times. As mentioned previously, a Circular Economy Workshop was held on 08.05.2025, with the aim of establishing goals regarding waste and principles of circularity within the new construction. Post-meeting notes can be found in Appendix B of this report.

6.3 Operational Waste

Operational waste storage for the Proposed Development has been based on the guidance provided by the Barnet Borough Council Local Plan and the London Plan (March 2022 Circular Economy Guidance). This guidance was seen as the most relevant advice for the site given the proposed use and occupancy.

As per the OWMP, provided under Appendix G, the following have been considered:

- Quantity of operational waste is expected to be 84,590 litres for general waste and 84,590 litres for recycling waste (OWMP Section 2.2). This amount is equivalent to 8,964 Kg per week in total.
- The recyclable waste steams to be collected are glass, cans, plastic, paper and cards (OWMP Section 2.1).

- The iceberg bin system will provide a separate containers for residual waste and dry mixed recyclables, while the food waste will be managed using the 7L food waste bins. There is a possibility that food waste may have a dedicated iceberg bin, or be collected by a designated food waste vehicle (OWMP Section 3.2, 4.2). Moreover, each residential unit will feature a minimum of three internal compartments: residual, dry mix recyclables and food/kitchen organic waste. (OWMP Section 4.1).
- The Sulo iceberg bins will be equipped with fill-level sensors that transmit real-time data to the on-site concierge. This enables proactive collection requests, collection scheduling, identifying patterns of high usage, and reporting to LBB on waste diversion rates and recycling performance (OWMP Section 5.4).
- The proposed waste storage system is based on underground 'iceberg' bins, emptied by a HIAB-type refuse lorry. The system proposed is manufactured by Sulo, a leading European waste management solutions provider. Pre-occupation liaison between the applicant, LBB Waste Management and FCC Waste will be undertaken to confirm operational procedures and service arrangements prior to first occupation (OWMP Section 3.1).
- The collection schedule is proposed based on a mix of regular schedule and on-demand collection, where the collection of recyclables, general and food waste will be weekly, while bulky, hazardous, electrical, clinical and commercial waste wil be on-demand (OWMP Section 2.1).

6.4 Post Completion Report

In line with the requirements of the GLA, a post-completion report will be provided to show progress against all numerical targets outlined within this report with updated waste information and Bill of Quantities. This will secured by planning conditions in stages as appropriate.

Conclusion

7.0 Conclusion

This Circular Economy Statement demonstrates the sustainability measures incorporated within the design of the Proposed Development at Stoney Wood, Barnet. It details the adoption of Circular Economy principles throughout the design, construction, and operation of the Proposed Development.

Through the incorporation of fundamental sustainability principles, the Proposed Development has:

- Demonstrated how materials have been selected on site based on longevity and/or environmental impact.
- Shown how waste generated from site will be targeted, reduced, and managed appropriately in line with the waste hierarchy.
- Adopted a flexible and adaptable design which will meet the needs of the present and future.
- Specified materials which are appropriate to their intended use and take account of durability and longevity.
- Used ‘Building in Layers’ principles to ensure that elements needing replacing within a shorter time period can do so easily.
- Considered operational waste generation and provided adequate internal and external storage, in addition to providing information to future occupants about the reduction of waste from consumable items and the impacts this has.
- Considered end of life impacts and the potential for material re-use following building disassembly.

Through a considered approach to fundamental sustainability principles and Circular Economy, the Proposed Development responds positively to the requirements and principles of this policy. A combination of design, construction, operation, and end-of-life measures have been adopted to ensure the Proposed Development is mitigating negative impacts and utilising a circular economy at every stage.

Appendices

Appendix A - Proposed Site Plan

Appendix B - Circular Economy Workshop Meeting Notes

CE workshop	**Date:** 08.05.2025	**Attendees:** Alex Kuropatwa (Kuropatwa Ltd) Lamya Salem (SRE)	**Carried out by:** Lamya Salem (SRE)
	Information Required		Comments
Client information	Name	Stoney Wood Property Developments Ltd	-
	Address	32 Tavistock Street, London	-
Project information	Address	Stoney Wood Quarter, the Fairway, London, NW7	-
	Project type	New Construction	-
	Scope of works	WLCA & CE	-
Project team and appointments	Architect / designer	London Placemaking	-
	Structural engineer	MBP (Michael Barclay Partnership LLP)	-
	MEP	Irvineering	-
	Main Contractor	-	Project team confirmed the Main Contractor is to be appointed after planning
	Demolition contractor	N/A	Project team confirmed no demolition will occur on-site.
Building information	Building type(s)	Residential	Redevelopment of the site for use as residential (Class C3), in new buildings up to ground plus 5 storeys in height including plant, play space, car and cycle parking, hard and soft landscaping and all other works associated with the development.
	Location	London Borough of Barnet	-
	GIFA (m2)	55,082	Area as confirmed by Architect

	Information Required		Comments
Assessments	BREEAM? (If yes, what scheme & version, and what credits are being targeted?)	N/A	-
	Building in Layers appraisal / assessment	N/A	-
	Excavation materials options assessment	Details requested	Some of the excavated material will be used for backfilling. Quantities will be confirmed at a later stage.
Documentation available	Floor plans	Revit Model received from the Architect	-
	Site plan	Received - included in the Appendix of the report	-
	Pre-Demolition audit	N/A	Project team confirmed no demolition will occur on-site.
	Site Waste Management Plan (SWMP) including a waste forecast (from excavation, demolition and construction)	Confirmation required	Project team confirmed that a Site Waste Management Plan has not yet been produced. Client commitment letter with the content of the SWMP that needs to be covered in the report is provided as an appendix to the Circular Economy report as an evidence of commitment to undertake the SWMP.
	Resource Management Plan (RMP) outlining all site requirements with regards to energy, water and waste (expected consumption and targets)	Confirmation required	Project team confirmed that a Resource Management Plan has not yet been produced, but confirmed that energy, water and waste usage and production will be monitored. Client commitment letter with the targets of the RMP is provided as an appendix to the Circular Economy report as an evidence of commitment to undertake the RMP.

	Information Required		Comments
Design	M&E Design	MEP Initial assumptions?	• Mechanical Ventilation and Heat Recovery (MVHR) is to be installed within the residential units. • Comfort cooling (Natural ventilation) is to be used throughout the development. • Anticipated that the plant room is to be located on the ground floor – installation of the plant within the basement is to be avoided for safety reasons, if possible. This will not be confirmed until the MEP Consultant is appointed. • An electrical system has been considered, but there are no further details proposed as of yet – SAP modelling will be undertaken to drive this decision. • Installation of an Air Source Heat Pump has been considered for heating of the development (cooling of up to 10 degrees) – this is still to be confirmed.
	Does the project comply with Guidelines of the Local Council	Confirmation required	Project will comply London Plan 2021 and Barnet Local Plan (2021–2036)
	Are any LZC / renewable technologies included?	Roof PV - Area/Quantity?	PV will be located on the rooftop of the building. Area to be confirmed at a later stage.
	Information about bins, skips, waste storage area, waste collections (during the project)	Area for refuse space?	Refuse space to be provided on ground floor, with segregation of different waste streams. Area to be confirmed.
	Information about bins, skips, waste storage area, waste collections (during operation)	Internal / external if applicable	Operational waste collection area to be confirmed.
Opportunities for circularity and waste reduction	Reuse of materials and elements onsite	Request Details	No available materials
	Reuse of materials and elements offsite	Request Details	Recycled crushed material (Type 1) for hardstanding and piling mat

	Information Required		Comments
Opportunities for circularity and waste reduction	Discuss designing for adaptability and disassembly – including any scenario modelling	Request Details	The client does not anticipate that the building will require re-purposing or requiring a change of use throughout its lifetime. The use of a reinforced concrete framed construction is a key factor on ensuring that the internal space remains as flexible as possible in the future, allowing the internal layout to be repurposed in the future to meet changing local needs.
	Discuss how the scheme can go above and beyond standard commitments	Standard practice of fly ash of 20%, structural steel 20% recycled content, aluminium 35% recycled content	Project team confirmed that they will maximize construction material with recycled content, including steel reinforcement with 97% recycled content. Glazing frames are confirmed to be aluminium.
Additional information	Energy targets	(if this is not included in SWMP/RMP)	Project team confirmed that SWMP produced will include energy targets. Commitment letter provided.
	Water targets	(if this is not included in SWMP/RMP)	Project team confirmed that SWMP produced will include watery targets. Commitment letter provided.
	Waste targets - waste produced / waste reduction	(if this is not included in SWMP/RMP)	Project team confirmed that SWMP produced will include waste targets. Commitment letter provided.
	Waste diverted from landfill target	(if this is not included in SWMP/RMP)	Project team confirmed that SWMP produced will include diversion from landfill targets. Commitment letter provided.
Other	Does the scope of our appointment include the provision of a Post Completion Report?		Client commitment letter provided.
	Note to client: ensure all targets and commitments are included in tender documents and contracts of future appointments (e.g. sub-contractors, waste contractors etc.)		

Appendix C - Tender Commitments Letter

FAIRWAY BARNET LTD

SWQ DEVELOPMENT MANAGEMENT

08 May 2025

SRE Ltd
3 London Square
Cross Lanes
Guildford
GU1 1UJ

Dear SRE,

Re: Stoney Wood Quarter, the Fairway, London, NW7

Site Waste Management Plan

Fairway Barnet can confirm that a Site Waste Management Plan will be developed for the site. In line with the commitments made in the Circular Economy Report produced by SRE, this plan will cover non-hazardous waste materials from on-site construction and dedicated off-site manufacture or fabrication, including demolition and excavation waste and accurate data records on waste arisings and waste management routes.

The SWMP will cover as a minimum:

- Estimated volumes and types of waste produced by the development.
- The size and location of waste and recycling stores, and how the waste will be delivered to these facilities.
- The size and quantity of containers for waste.
- Any proposed separate collection point, and the method for transferring waste to this location.
- A target benchmark for resource efficiency
- The procedures and commitments for minimising hazardous and non-hazardous waste in line with the target benchmark
- The procedures for minimising hazardous waste
- A waste minimisation target and details of waste minimisation actions to be undertaken
- Procedures for estimating, monitoring, measuring and reporting hazardous and non-hazardous site waste. If waste data is obtained from licensed external waste contractors, the data will be reliable and verifiable (using data from EA/SEPA/EA Wales/NIEA Waste Return Forms)
- Procedures for sorting, reusing and recycling construction waste into defined waste groups either on-site or through a licensed external contractor
- Procedures for reviewing and updating the plan
- The name or job title of the individual responsible for implementing the above.

FAIRWAY BARNET LTD

SWQ DEVELOPMENT MANAGEMENT

Fairway Barnet can confirm that the Main Contractor appointed will be instructed to organise waste materials into separate key waste groups as per the attached table (according to the waste streams generated by the scope of the works) either on-site or through a licensed contractor for recovery.

Yours sincerely,

Oliver Kuropatwa

FAIRWAY BARNET LTD

SWQ DEVELOPMENT MANAGEMENT

European Waste Catalogue	Key group	Examples
170102	Bricks	Bricks
170101	Concrete	Pipes, kerb stones, paving slabs, concrete rubble, precast and in situ
170604	Insulation	Glass fibre, mineral wool, foamed plastic
1501	Packaging	Paint pots, pallets, cardboard, cable drums, wrapping bands, polythene sheets
170201	Timber	Softwood, hardwood, board products such as plywood, chipboard, medium density fibreboard (MDF)
1602	Electrical and electronic equipment	Electrical and electronic TVs, fridges, air-conditioning units, lamps equipment
200301	Canteen/office	Office waste, canteen waste, vegetation
1301	Oils	Hydraulic oil, engine oil, lubricating oil
1703	Asphalt and tar	Bitumen, coal tars, asphalt
170103	Tiles and ceramics	Ceramic tiles, clay roof tiles, ceramic, sanitary ware
1701	Inert	Mixed rubble/excavation material, glass
1704	Metals	Radiators, cables, wires, bars, sheet
170802	Gypsum	Plasterboard, plaster, fibre cement sheets
170101	Binders	Render, cement, mortar
170203	Plastics	Pipes, cladding, frames, non-packaging sheet
200307	Furniture	Tables, chairs, desks, sofas
1705	Soils	Soils, clays, sand, gravel, natural stone
Most relevant EWC	Liquids	Non-hazardous paints, thinners, timber treatments
Most relevant EWC	Hazardous	Defined in the Hazardous Waste List (HWL) of the European Waste Catalogue (EWC)
Most relevant EWC	Floor coverings (soft)	Carpets, vinyl flooring
Most relevant EWC	Architectural features	Roof tiles, reclaimed bricks, fireplaces
170904 (Mixed)	Mixed/other	Efforts should be made to categorise waste into the above categories wherever possible.

FAIRWAY BARNET LTD

SWQ DEVELOPMENT MANAGEMENT

08 May 2025

SRE Ltd
3 London Square
Cross Lanes
Guildford
GU1 1UJ

Dear SRE,

Re: Stoney Wood Quarter, the Fairway, London, NW7

Fairway Barnet can confirm that all targets and commitments stated within the Circular Economy Report for the Proposed Development will be included within the tender documents and contracts of future appointments (e.g. Main Contractor, Demolition Contractor, Excavation Contractor, sub-contractors, etc.).

During the tender process, responsibility will be assigned to an individual for monitoring, recording and reporting energy use, water consumption and transportation data (where measured) resulting from all on-site construction processes throughout the build program. To ensure the robust collection of information, this individual will have the appropriate authority and responsibility to request and access the data required – for instance, the Main Contractor.

Future appointments will only be made where confirmation is received from the party that the standards included in the tender documents are acknowledged and committed to.

Yours sincerely,

Oliver Kuropatwa

Appendix D - Recycling and Waste Reporting Table

		Total estimates of waste				Waste management route						Summary			
	Type of Waste	Source of information	Overall waste (tonnes)	Overall waste (tonnes/ m^2 GIA)	Performance Indicator (LPG Appendix 1)	Reuse onsite (%)	Reuse offsite (%)	Recycle onsite (%)	Recycle offsite (%)	To landfill (%)	To other management (%)	Total reuse (%)	Total recycle (%)	Total reuse and recycle (%)	Total waste reported (%)
	PRODUCT AND CONSTRUCTION STAGE (MODULE A)														
1	Demolition														
2	Excavation														
3	Construction														
	USE STAGE (MODULE B)*														
3	Demolition / Strip-out														
4	Construction														
	Type of Waste	Source of information	Overall waste (tonnes/ annum)	Overall waste (tonnes/ annum/ m^2)	Performance indicator (LPG Appendix 1)	Reuse onsite (%)	Reuse offsite (%)	Recycle onsite (%)	Recycle offsite (%)	To landfill (%)	To other management (%)	Total reuse (%)	Total recycle (%)	Total reuse and recycle (%)	Total waste reported (%)
5	Municipal														
6	Industrial (if applicable)														
	MODULE A – MODULE C*														
		Source of information	Overall materials (tonnes)	Overall materials (modules A-C) (tonnes/ m^2)	-	Reuse onsite (%)	Reuse offsite (%)	Recycle onsite (%)	Recycle offsite (%)	To landfill	To other management (%)	Total reuse (%)	Total recycle (%)	Total reuse and recycle (%)	Total waste reported (%)
7	Total materials														

Appendix E - Recycled Content Detailed Calculations

Material	Quantity	Unit Cost (£)	Total Cost (£)	Recycled Content (%)	Recycled Content (Kg)	Cost of Recycled Content (£)
Substructure						
Reinforcement steel (rebar), generic, 97% recycled content (typical), A615 (One Click LCA)	856,749.00	0.57	488,346.93	97%	831,046.53	473,696.52
Ready-mix concrete, PAV2, 15% Cement replacement with fly ash	1,567,766.00	0.05	78,388.30	2%	29,395.61	1,469.78
Frame						
Ready-mix concrete, RC 40/50 (40/50 MPa), 25% Cement replacement with blast furnace slag (GGBS)	11,446,631.00	131.67	1,507,177,903.77	3%	357,134.89	47,023,950.60
Reinforcement steel (rebar), 97% recycled content	1,219,836.00	0.57	695,306.52	97%	1,183,240.92	674,447.32
Upper Floors						
Gypsum plaster board, regular, generic, 6.5-25 mm	337,220.00	2.3	775,606.00	3%	10,116.60	23,268.18
Glass wool insulation in bats or rolls, unfaced, L = 0.035 W/mK, 50% recycled glass content	114,406.00	4.54	519,403.24	50%	57,203.00	259,701.62
Profiled steel decking for composite floor slabs/decking	11,870.00	11.25	133,537.50	70%	8,309.00	93,476.25
Galvanized profiled steel decking, for composite floor slabs	18,602.00	9	167,418.00	70%	13,021.40	117,192.60
Reinforcement steel (rebar), generic, 97% recycled content	603,014.00	0.57	343,717.98	97%	584,923.58	333,406.44
Roof						
Bitumen-polymer membrane roofing, 2 layer, mechanically fastning	4,917.00	6.88	33,828.96	50%	2,458.50	16,914.48
Gypsum plasterboard, fire resistant, 15.4x900/1200 mm	18.00	6.5	117.00	25%	4.50	29.25
Stone wool (mineral wool) insulation, unfaced	10,988.00	4.85	53,291.80	18%	1,961.36	9,512.59
Steel sheets, generic, 60% recycled content	7,174.00	6.92	49,644.08	60%	4,304.40	29,786.45

Material	Quantity	Unit Cost (£)	Total Cost (£)	Recycled Content (%)	Recycled Content (Kg)	Cost of Recycled Content (£)
Glass wool insulation, 35 mm, 0.035 W/mK, 630 g/m2	4,030.00	45.37	182,841.10	54%	2,176.20	98,734.19
External Walls						
Gypsum plasterboard with tapered or square edges, fire resistant	111,744.00	10.83	1,210,187.52	25%	27,936.00	302,546.88
Aluminium façade cladding panel, powder coated, 4.5 kg/m2	64,832.00	11.5	745,568.00	70%	45,382.40	521,897.60
Aluminium framed stick curtain wall system with clear float glass insulating unit	758,113.00	11.5	8,718,299.50	8%	64,212.17	738,439.97
Windows & External Walls						
Aluminium framed double glazed doors, per m2, 79.5% glass	6,105.00	10.2	62,271.00	12%	719.17	7,335.52
Wooden doorleaf, 0.838x1.981 m, 8.8 kg/m2 (JELD-WEN)	390.00	9.35	3,646.50	21%	80.73	754.83
Aluminium frame window, double glazing, non-operable	32,035.00	11.5	368,402.50	7%	2,370.59	27,261.79
Aluminium framed unitized curtain wall system with coated glasing	19,835.00	11.5	228,102.50	12%	2,374.25	27,303.87
Single glass pane, excluding frame, 7 mm/m2, 17.5 kg/m2	18,294.00	2.25	41,161.50	30%	5,488.20	12,348.45
Hot rolled austenitic stainless steels, 0.3-13 mm, 7900 kg/m3	473.00	6.64	3,140.72	84%	399.21	2,650.77
Internal Walls & Partitions						
Adaptable walls with fabric-coated panels, 5m x 2.9m, 27 kg/m2	270.00	7.5	2,025.00	16%	43.50	326.23
Concrete masonry unit (CMU), 198 kg/m2, Synerg·Eco	2,916,005.40	0.18	524,880.97	22%	644,437.19	115,998.69
Gypsum plaster board, 50% recycled, generic, 6.5-25 mm	866,340.21	2.3	1,992,582.48	50%	433,170.11	996,291.24
Glass wool insulation in bats or rolls, unfaced, L = 0.035 W/mK, 50% recycled glass content	94,254.73	10.21	962,340.79	50%	47,127.37	481,170.40
Internal Doors						
Wooden door with kraft paper facing, 110 kg/unit (Aspex)	1,320.00	15	19,800.00	37%	484.44	7,266.60

Material	Quantity	Unit Cost (£)	Total Cost (£)	Recycled Content (%)	Recycled Content (Kg)	Cost of Recycled Content (£)
Finishes						
Raised flooring panel with particle board core in a galvanised steel	745.00	1.4	1,043.00	100%	745.00	1,043.00
Woven wall-to-wall carpet, PA 6, textile fabric backing	18.00	2527.35	45,492.30	25%	4.50	11,373.08
Suspended metal ceiling system, 5.212 kg/m2, SAS System	3,196.00	5.92	18,920.32	22%	712.07	4,215.45
Aluminium entrance matting, 12.2 kg/m2 (One Click LCA)	3,721.00	3.6	13,395.60	55%	2,046.55	7,367.58
Emulsion for interior use with recycled paint content	570.00	1.2	684.00	35%	199.50	239.40
FFE						
Laminated ply table, 2000 x 1000 mm, 49.59 kg/unit	9,438.00	2.3	21,707.40	50%	4,719.00	10,853.70
Decorative plastic panels from 100% recycled rHIPS, 12 mm	10,365.00	3.5	36,277.50	100%	10,365.00	36,277.50
Bamboo cubical, 163.69 kg/unit, Mivera (Maxwood Washrooms)	10,421.00	2.4	25,010.40	4%	383.49	920.38
Steel drawer units for office, 74 kg/unit, LateralFile™	7,234.00	1.6	11,574.40	39%	2,785.09	4,456.14
Steel cupboards with double skin doors, 45 kg/unit (Bisley)	4,446.00	2	8,892.00	62%	2,747.63	5,495.26
Wooden wardrobe, 72.9 kg/unit (Bisley)	13,950.00	1.4	19,530.00	47%	6,584.40	9,218.16
Prefabricated dormer from GRP, softwood and polyurethane	3,817.00	2.75	10,496.75	9%	344.29	946.81
Glass coffee table with wooden legs, diameter: 410 mm	3,713.00	4.2	15,594.60	50%	1,856.50	7,797.30
Height adjustable standing desk with medium density fibreboard	21,607.00	1.6	34,571.20	50%	10,803.50	17,285.60
Kitchen cabinet, H: 900 mm, D: 600 mm, W: 600 mm, 44 kg/unit	40,269.00	2.5	100,672.50	50%	20,134.50	50,336.25
Office swivel chair, 17 kg/unit (One Click LCA)	30,427.00	5.5	167,348.50	50%	15,213.50	83,674.25
Student desk with particleboard worktop and steel legs	2,650.00	1.4	3,710.00	50%	1,325.00	1,855.00
Table with round veneered medium density fibreboard top	197.00	1.6	315.20	50%	98.50	157.60
Two-seat sofa with steel legs, H: 790 mm, D: 890 mm	46,051.00	4	184,204.00	50%	23,025.50	92,102.00

Material	Quantity	Unit Cost (£)	Total Cost (£)	Recycled Content (%)	Recycled Content (Kg)	Cost of Recycled Content (£)
Wardrobe from medium density particleboard, H: 2323 mm	59,904.00	1.2	71,884.80	50%	29,952.00	35,942.40
Aluminium base office chair, 20.63 kg/unit, Aeron Chair	107.00	8.7	930.90	67%	71.69	623.70
Plastic work chair, 16.64 kg/unit, Verus (Herman Miller)	87.00	6.6	574.20	18%	15.66	103.36
Services						
Galvanized steel ventilation duct, circular, DN 100 mm	2,369.00	1.43	3,387.67	70%	1,658.30	2,371.37
Steel storage with sliding doors, 120 kg/unit, Glide	749.00	1.75	1,310.75	62%	462.88	810.04
Hot dip galvanized steel, 0.73 mm, 5.72 kg/m2, EN15804+A1	8,278.00	1.15	9,519.70	70%	5,794.60	6,663.79
External Works						
Asphalt, generic, compacted, 5/95% bitumen-aggregate ratio	31.00	0.07	2.17	20%	6.20	0.43
Ready-mix concrete, normal-strength, generic, C30/37	9,615.00	25.24	242,682.60	1%	96.15	2,426.83
Reinforcement steel (rebar), generic, 97% recycled content	258.00	0.57	147.06	97%	250.26	142.65
Steel access ramp, 46.72 kg/m2 (Rapid Ramp Ltd)	5,036.00	2.45	12,338.20	70%	3,525.20	8,636.74
Total Cost of Recycled Content						**52,800,514.86**

Appendix F - SRE Assumptions

Class	Material
FOUNDATION	Reinforcement steel (rebar), generic, 97% recycled content (typical), A615 (One Click LCA (2018))
FOUNDATION	Precast concrete retaining wall, incl. reinforcement, ep. 0.25m, C25/30 XC4 CEM II/A-S (SNBPE)
FOUNDATION	Retaining wall from natural stone, width 400 mm (16 in)
FOUNDATION	Clay brick, UK average production, 215 mm x 102.5 mm x 65 mm, 2.13 kg/unit, 1485 kg/m3 (Brick Development Association (BDA) Ltd (2023))
FOUNDATION	Cement mortar (One Click LCA)
FOUNDATION	Ready-mix concrete, PAV2, 15% Cement replacement with fly ash
FLOOR	Polyethylene vapour barrier membrane, 0.15 mm, 0.14 kg/m2 (One Click LCA)
FLOOR	PUR rigid insulation panels with aluminium foil, paper and PET facing, R=7.4 m2K/W, L=0.022 W/mK, 160 mm, 5.73 kg/m2, Lambda=0.022 W/(m.K), EFITOIT® 160 mm (SOPREMA SAS)
FLOOR	Sand cleanliness per GFA, EN15804 A1/A2
FLOOR	Sand (One Click LCA)
BEAM	Reinforcement steel (rebar), generic, 97% recycled content (typical), A615 (One Click LCA)
BEAM	Ready-mix concrete, normal-strength, generic, C30/37 (4400/5400 PSI), 10% (typical) recycled binders in cement (300 kg/m3 / 18.72 lbs/ft3) (One Click LCA)
BEAM	Glass wool insulation, 35 mm, 0.035 W/mK, 630 g/m2, 18 kg/m3, ISOVER KL/KT-35 Multi-Pack (Saint-Gobain)
BEAM	Polypropylene vapour membrane, French average, 0.18 kg/m2 (MDEGD)
BEAM	Glued laminated timber (Glulam) beams (Kjeldstad)
COLUMN	Reinforcement steel (rebar), generic, 97% recycled content (typical), A615 (One Click LCA (2018))
COLUMN	Ready-mix concrete, RC 40/50 (40/50 MPa), 25% Cement replacement with blast furnace slag (GGBS)
COLUMN	Ready-mix concrete, normal-strength, generic, C40/50 (5800/7300 PSI), 10% (typical) recycled binders in cement (400 kg/m3 / 24.97 lbs/ft3) (One Click LCA)
COLUMN	Ready-mix concrete, normal-strength, generic, C30/37 (4400/5400 PSI), S1 XC0/XC1, 10% (typical) recycled binders in cement (min cem. content: 280 kg/m3 / 18.72 lbs/ft3), Portland-fly ash cement CEM II/A-V 42.5 (One Click LCA (2024))
ROOF	Self-levelling mortar, for floors, walls and overhead appl., 3-50 mm, 1400 kg/m3, Pericret (PCI Augsburg)

Class	Material
ROOF	Concrete roof tiles, Avg. thickness per m2: 22.4 mm, 334x420 mm, 2100 kg/m3 (Eternit)
ROOF	Woven polypropylene geotextile, 0.11 kg/m2 (One Click LCA)
ROOF	Stone wool (mineral wool) insulation, unfaced, L = 0.031 W/mK, R = 1 m2K/W, 31mm, 1.86 kg/m2, 60 kg/m3, (Range: 51-65kg/m3), 22% slag content (One Click LCA)
ROOF	Waterproof, protective, flexible coating, 1.5 kg/l, Lastogum (PCI Augsburg)
ROOF	Steel sheets, generic, 60% recycled content, S235, S275 and S355 (One Click LCA)
ROOF	Roofing tile from clay (terracotta), flat (shingles), 285 x 475 mm (11.2 x 18.7 in), 10 pcs/m2, 3.5 kg/pcs, 35 kg/m2 (One Click LCA)
ROOF	Steel roof cladding system with glass mineral wool insulation, U = 0.24 W/m2K, 201.25 mm, 15.54 kg/m2, River-Therm® Secret Fix (Tata Steel and CA Building Products)
ROOF	PUR insulation panel for pitched roof, multi-layer composite facing, L=0.022 W/mK, R=4.65 m2K/W, 103 mm, 3.77 kg/m2, Lambda=0.022 W/(m.K), Eurotoit® MONTAGNE 103 mm (RECTICEL INSULATION SAS)
ROOF	Steel roof cladding system with glass mineral wool insulation, U = 0.16W/m2K, 281.4 mm (Total), 0.70 mm (Outer sheet), 0.70 mm (Liner sheet), 280 mm (Insulation), 16.29 kg/m2, Elite 2 (Tata Steel, Euroclad Group Ltd)
ROOF	Green roof assembly, with timber joists
ROOF	Stone wool (mineral wool) insulation, unfaced, L = 0.0315 W/mK, R = 1 m2K/W, 31.5mm, 1.26 kg/m2, 40 kg/m3, (Range: 36-50kg/m3), 22% slag content (One Click LCA)
ROOF	Extensive green roof system, 40mm, 23.34 kg/m2, Urbanspace (Knauf)
ROOF	Bitumen-polymer membrane roofing, 2 layer, mechanically fastened (EWA)
SLAB	Wooden interior cladding, for UK
SLAB	Wood interior door
SLAB	Ready-mix concrete, RC40/50 with average UK additions cement
SLAB	EPDM waterproofing roof membrane, 1.2 mm, 1.57 kg/m2, HERTALAN® EASY COVER FR (Carlisle Construction Materials B.V.)
SLAB	Ready-mix concrete, RC40/50 with average UK additions cement
SLAB	Profiled steel decking for composite floor slabs/decking, 1.25 mm sheet thickness, 600 mm width, 16.31 kg/m2, ComFlor 210 1.25mm steel structural floor deck (Tata Steel)
SLAB	Galvanized profiled steel decking, for composite floor slabs/decks, 1 mm sheet thickness, 12.83 kg/m2, ComFlor® 80 1.0mm with Colorcoat FD® 170 (Tata Steel Europe (2021))
SLAB	Wooden joist floor assembly, 278 mm, incl. 225 mm mineral wool insulation, with updated OCL generic data

Class	Material
SLAB	Waterproofing roofing system incl. insulation and concrete tiles, for UK
SLAB	Floor slab, timber joists, P2 R30 (1…2 krs.) (Large school), incl. One Click LCA generic data
STAIRS	Parquet
STAIRS	Laminated timber
FINISH	Cementitious floor leveling screed, 10-250 mm, 1.8 kg/m2/mm, 1.6–1.8 kg/l, webervetonit 6000 Rapid Screed (Saint-Gobain Finland Oy)
FINISH	Weber floor smoothing screed, 5-50mm layer thickness, 34 kg/m2, vetonit 130 Core (weber.)
FINISH	Reinforcement mesh fabric (glass fibre), 0.16kg/m2, R131 (ADFORS)
FINISH	Plywood, generic, 4-50 mm (0.16-1.97 in), 620 kg/m3 (38.7 lbs/ft3) (One Click LCA)
FINISH	Dried lumber from spruce or pine wood, 474 kg/m3, moisture content 18 % (Puutuoteteollisuus)
FINISH	Planed timber, conifer (Treindustrien)
FINISH	Gypsum plaster board, regular, generic, 6.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3), 0% recycled gypsum (One Click LCA)
FINISH	Planed timber, conifer (Treindustrien)
FINISH	Gypsum plasterboard, windproofing, vapour resistant sheathing, 9.5x900/1200 mm, 7.2 kg/m2, Vindskydd, GUE/GU9 (Gyproc)
FINISH	Laminated veneer lumber (LVL), 9% moisture content, 510 kg/m3 (Stora Enso)
FINISH	Fiberglass reinforcing mesh, 0.145 kg/m2, Treillis d`armature en fibre de verre (DONNEE ENVIRONNEMENTALE GENERIQUE PAR DEFAUT)
FINISH	Particleboard, uncoated, 8 - 48 x 590 - 2850 x 1025 - 6250 mm, 611 kg/m3 (Sonae Indústria)
FINISH	PVC floor covering, 4.5 mm, 5.003 kg/m2, Art Select, Monet, Van Gogh, Opus, Rubens, Michelangelo, HDC (Karndean)
FINISH	Aluminium entrance matting, 12.2 kg/m2 (One Click LCA)
FINISH	Emulsion for interior use with recycled paint content, 0.168 kg/m2, 1.4 kg/l, Dulux Trade Evolve Matt (AkzoNobel, plant Prudhoe)
FINISH	Gypsum plasterboard, fire resistant, 15.4x900/1200 mm, 12.7 kg/m2, PROTECT F, GFE/GF15 (Gyproc)
FINISH	Cross laminated timber (CLT), 481 kg/m3, 12% (± 3%) moisture content (One Click LCA)
FINISH	Gypsum plaster, from 100% natural gypsum, in powder form (One Click LCA)

Class	Material
FINISH	Glass fibre reinforced plasterboard
FINISH	Wall sandwich panels, 100 mm, U = 0.19 W/Km2, 12.654 kg/m2, Quadcore Evolution (Kingspan (2021))
FINISH	Terracotta brick with hollow chambers, for facade application, 30 mm thickness, 237.5-500 mm height, up to 1500 mm lenghts, 42 kg/m2, 2200 kg/m3 (One Click LCA)
DOOR	Wooden and engineered wood interior doors, biogenic CO2 not substracted, 485-1360 mm x 1597-2735 mm, min. thickness 39 mm, 41 kg/m2 (VHI)
DOOR	Softwood lath (stud), kiln dried, sawn, 440 kg/m3, 10% moisture content, coniferous wood (One Click LCA)
DOOR	Joinery strip seal, 2.75E-3 kg/ml, Fabricant Références commerciales ISO CHEMIE SO-ZELL FOND DE JOINT SIKA FONDS DE JOINTS SIKA TRAMICO TRAMICORD TREMCO ILLBRUCK AZ102 FOND DE JOINT PE/PR102 CORDE PE (SFJF DTSB)
DOOR	Window - uPVC frame DG
DOOR	High pressure laminate (HPL), 1 mm, 1.5 kg/m2, 1500 kg/m3 (One Click LCA)
DOOR	Single glass pane, excluding frame, 7 mm/m2, 17.5 kg/m2
DOOR	Hot rolled austenitic stainless steels, 0.3-13 mm, 7900 kg/m³, Lambda=15 W/(m.K), 304, 304D, 304ED, 304H, 304L, 304M, 304LN (Aperam)
DOOR	Hot-dipped zinc/iron alloy-coated steel, Base Metal Thickness (BMT): 1.15 mm, 9.13 kg/m2, Metallic Coating ZF100, ZINCANNEAL (BlueScope Steel Limited)
DOOR	Stainless steel door handle, 1.69 kg/unit (ASSA ABLOY)
DOOR	Wooden interior door, per m2, 809x2053 mm, 42x92 mm frame, 52 mm door leaf (Nordic Dørfabrikk)
DOOR	Rubber floor tiles, 965.2 mm x 965.2 mm, 10 mm, 9.295 kg/m2 (Average), Next Step® (Luxury) - Square Cut, Interlocking (Dinoflex)
DOOR	External door, for Finland
DOOR	Oriented strand board (OSB), 8-30 mm (Nordboard, from Inverness mill)
DOOR	Multifunctional steel door, product group 1, 1000mm x 2125 mm, H 3 D, H 3 OD, H 3 VM, H 3 KT, RS 55, D 65 OD, D 65 (Hörmann)
DOOR	Single glazed window, incl. aluminium frame
DOOR	Float glass, single pane, generic, 3-12 mm (0.12-0.47 in), 10 kg/m2 (2.05 lbs/ft2) (for 4 mm/0.16 in), 2500 kg/m3 (156 lbs/ft3) (One Click LCA)
DOOR	Extruded aluminium profiles for window and door frames, generic, 0% recycled content, average world aluminium manufacturing technology (One Click LCA)

Class	Material
DOOR	Oriented strand board (OSB), 8-30 mm (Nordboard, from Inverness mill)
DOOR	Wooden doorleaf, 0.838x1.981 m, 8.8 kg/m2 (JELD-WEN)
WINDOW	Aluminium framed double glazed doors, per m2, 79.5% glass, 15.7% aluminium, 2.2% steel, 44 kg/m2, width:1.23m, height:2.18m, 6mm toughened and 8.8mm laminated glass, Edge Symmetry (Optima)
WINDOW	PVC framed window double-glazed, operable, 1.23 m x 1.48 m, 26.3 kg/m2 (One Click LCA)
WINDOW	Toughened glass, excluding frame, 15 mm/m2, 37.5 kg/m2
WINDOW	High pressure laminate (HPL), 1 mm, 1.5 kg/m2, 1500 kg/m3 (One Click LCA)
WINDOW	Multi-layer safety glass, excluding frame, 16 mm/m2, 40 kg/m2
WINDOW	Float glass, 6 mm, 15 kg/m2, 2500 kg/m3, PLANICLEAR® 5 mm, PLANICLEAR® 6 mm, DIAMANT® 5 mm, DIAMANT® 6 mm (SAINT-GOBAIN GLASS FRANCE)
WINDOW	Aluminium frame window, double glazing, non-operable, 22.88 kg/m2, 1.48 x 2.18 m, SlimLine 38 window –type LDN (Reynaers Aluminium)
EXTERNAL WALL	Glass wool insulation in bats or rolls, unfaced, L = 0.035 W/mK, R = 2.86 m2K/W, 100 mm, 2.75 kg/m2, 27.5 kg/m3, (Range: 20-35kg/m3), 50% recycled glass content (One Click LCA)
EXTERNAL WALL	Treated wooden cladding, generic, 15-40 mm (0.59-1.57 in), 9.75 kg/m2 (1.99 lbs/ft2)(for 15 mm/0.59 in), 525 kg/m3 (32.8 lbs/ft3), min. G4-1 (One Click LCA)
EXTERNAL WALL	Aluminium framed unitized curtain wall system with coated glass insulating unit, double glazed, 4-16-4, 50.3 kg/m2, 70% recycled aluminium (One Click LCA)
EXTERNAL WALL	Medium density concrete block, 440x140x215, 217 kg/m2, 10.4N 140, L14010 (Lignacite Ltd)
EXTERNAL WALL	Gypsum plasterboard with tapered or square edges, fire resistant, 12.5 mm, 10.2 kg/m2, L= 0.190 W/m.K, Fire resistance class : A2-s1, d0, Lambda=0.19 W/(m.K), Gyproc FireLine (Saint-Gobain Construction Products UK Limited t/a British Gypsum (2024))
EXTERNAL WALL	Mortar, Mortar (1:5), Uses the general UK average cement mixture
EXTERNAL WALL	Fiberglass insulation in batts, faced, R-5.68 (Rsi=1 m2K/W), 1.416 kg/m2, Unfaced Fiberglass, Kraft Faced Fiberglass, Panel Deck FSK-25, FSK-25, ComfortTherm®, Cavity-SHIELD™ (Johns Manville)
EXTERNAL WALL	Render - Sand and cement
EXTERNAL WALL	Sandwich panel with stone wool core and steel facing, 175 mm, 27.3 kg/m2, Firemaster (Euroclad Group)
EXTERNAL WALL	Window, 0.63 W/m2K, 46.5 kg, 1.23x1.48 m, type AT450E (H-vinduet Magnor)
EXTERNAL WALL	Lightweight brick effect cladding system, 4-6 mm, 5.8 kg/m2, A2-S1, d0, weberwall brick (Saint-Gobain Construction Products UK Limited t/a Weber)

Class	Material
EXTERNAL WALL	Aluminium framed stick curtain wall system with clear float glass insulating unit, double glazed, 4-16-4, 36.4 kg/m2, 50% recycled aluminium (One Click LCA)
EXTERNAL WALL	Granite interior wall cladding, for Uk
EXTERNAL WALL	Granite for interior and exterior coating of pavements, floors, walls and facades, 30 mm, 2671 kg/m3, Nordico (CLÚSTER DEL GRANITO)
EXTERNAL WALL	Aluminium façade cladding panel, powder coated, 4.5 kg/m2, 70% recycled content (One Click LCA)
EXTERNAL WALL	Tile adhesive, all round, for ceramics, 1-5 mm, 1400 kg/m3, Verlegemörtel (PCI Augsburg)
EXTERNAL WALL	Lightweight aggregate (LECA) block internal wall assembly, incl. render, 180 mm, for UK
EXTERNAL WALL	Finishing wall mortars, French average, 3 mm, 4.2 kg/m2, Mortiers de ragréage muraux (DONNEE ENVIRONNEMENTALE GENERIQUE PAR DEFAUT)
EXTERNAL WALL	Concrete masonry unit (CMU) hollow core from lightweight concrete, 6x8x16 inch (150x200x400mm), 105lbs/ft3 (1680 kg/m3) (concrete density), 20.2 lbs (9.16 kg)/unit (One Click LCA)
EXTERNAL WALL	Masonry mortar, light, 1000 kg/m3 (quick-mix)
EXTERNAL WALL	Finishing wall mortars, French average, 3 mm, 4.2 kg/m2, Mortiers de ragréage muraux (DONNEE ENVIRONNEMENTALE GENERIQUE PAR DEFAUT)
INTERNAL WALL	Granite for interior and exterior coating of pavements, floors, walls and facades, 30 mm, 2671 kg/m^3
INTERNAL WALL	Finishing wall mortars, French average, 3 mm, 4.2 kg/m^2
INTERNAL WALL	Concrete masonry unit (CMU), 198 kg/m^2, Synerg·Eco
INTERNAL WALL	Planed timber, conifer
INTERNAL WALL	Glass wool insulation in bats or rolls, unfaced, L = 0.035 W/mK, 100 mm, 2.75 kg/m^2, 50% recycled glass content
INTERNAL WALL	Oriented strand board (OSB), 8-30 mm
INTERNAL WALL	Adaptable walls with fabric-coated panels, 5m x 2.9m, 27 kg/unit, Adaptable Walls
INTERNAL WALL	Gypsum plaster board, regular, 50% recycled gypsum, 6.5-25 mm
OTHER	Concrete staircase, U-shaped, with no flat landing, width 140cm, 1928.2kg (CERIB)
OTHER	Steel access ramp, 46.72 kg/m2 (Rapid Ramp Ltd)
OTHER	Vinyl flooring sheet
OTHER	Timber - hardwood

Class	Material
OTHER	Suspended metal ceiling system, 5.212 kg/m2, SAS System 150 (Steel) (SAS International)
OTHER	Concrete waste and storm water sewer with slope, Ø300, for normal or demanding conditions
F&F	Table with round veneered medium density fibreboard top, diameter: 800 mm, 21 kg/unit (One Click LCA)
F&F	Steel drawer units for office, 74 kg/unit, LateralFile™, SystemFile™, Essentials, Be™ (Bisley)
F&F	Chair, 16.3 kg/unit, Mirra® 2 (Herman Miller (UK))
F&F	Microwave, 280 x 402 x 212 mm (11.0 x 15.9 x 8.3 in), 17L capacity, 10.6 kg/unit (23.4 lbs/unit) (One Click LCA)
F&F	Wardrobe from medium density particleboard, H: 2323 mm, D: 606 mm, W: 2670 mm, 288 kg/unit (One Click LCA)
F&F	Steel storage with sliding doors, 120 kg/unit, Glide (Bisley)
F&F	Bamboo cubical, 163.69 kg/unit, Mivera (Maxwood Washrooms Ltd.)
F&F	Steel cupboards with double skin doors, 45 kg/unit (Bisley)
F&F	Kitchen cabinet, H: 900 mm, D: 600 mm, W: 600 mm, 44 kg/unit (One Click LCA)
F&F	Plastic work chair, 16.64 kg/unit, Verus (Herman Miller)
F&F	Aluminium base office chair, 20.63 kg/unit, Aeron Chair (Herman Miller (2022))
F&F	Glass coffee table with wooden legs, diameter: 410 mm, glass thickness: 6 mm, 10 kg/unit (One Click LCA)
F&F	Two-seat sofa with steel legs, H: 790 mm, D: 890 mm, W: 1840 mm, 60 kg/unit (One Click LCA)
F&F	Laminated ply table, 2000 x 1000 mm, 49.59 kg/unit, Type table (laminated ply) (MARK Product)
F&F	Decorative plastic panels from 100% recycled rHIPS, 12 mm, 3000x1200 mm, 49.7 kg/unit, Alba, Heron (Re-worked Ltd TA Smile Plastics)
F&F	Student desk with particleboard worktop and steel legs, W: 700 mm, L: 500 mm, 13 kg/unit (One Click LCA)
F&F	Stainless steel wall-hung urinal, 3.5 kg/unit, 420 x 280 x 290 mm (One Click LCA)
F&F	Laminated ply table, 2000 x 1000 mm, 49.59 kg/unit, Type table (laminated ply) (MARK Product)
SYSTEMS	Ventilation system for residential buildings, with updated OCL generic data
SYSTEMS	Elevator hoistway with floor door per floor, traction (cable) type, 251.36 kg/unit (USE ONLY WITH Passenger elevator car) (One Click LCA)
SYSTEMS	Galvanized steel ventilation duct, circular, DN 100 mm, (4 in), 1.3 kg/m, wall thickness: 0.5 mm (One Click LCA)

Class	Material
SYSTEMS	Switch button, 0.045 kg/unit (HAGER / HAGER SE)
SYSTEMS	Double two-way light switch, 0.036 kg/unit (One Click LCA)
SYSTEMS	Luminaires, 0.365 kg/unit, ZTA.35 Pole clamp (Stoane Lighting)
SYSTEMS	Luminaires, 0.95 kg/unit, 0.003 kW, V58S 3W/m 24VDC Opal Diffuser (Lumino Distribution)
SYSTEMS	Ball fitting and manifolds, DN 8, 0.12 kg/unit (One Click LCA)
SYSTEMS	Emergency exit light, French average, L.S.C + D.B.R (DONNEE ENVIRONNEMENTALE GENERIQUE PAR DEFAUT)
SYSTEMS	Autoclaved aerated concrete solid blocks, 150x200x300 mm (6x8x12 in), 600 kg/m3, 5.66 kg/unit (One Click LCA)
SYSTEMS	Data mounting plates, 0.012 kg/unit, (HAGER / HAGER SE)
SYSTEMS	Suspension bracket, 770 mm, 1.4706 kg/unit, FTB-770 (Gripple Ltd)
SYSTEMS	Switch master, 0.363 kg/unit, SpaceLogic KNX (SCHNEIDER ELECTRIC - ENERGY / SCHNEIDER ELECTRIC INDUSTRIES SAS)
SYSTEMS	Variable refrigerant flow (VRF), system indoor unit, 25 kg/unit, PEFY-M50VMA-A (Mitsubishi Electric)
SYSTEMS	Motion integrated drive, 24..36 V - CANopen DS301 - 5 A, 4.4 kg/unit, ILS1F851PB1F0 (Schneider Electric)
SYSTEMS	Outdoor unit for air/air heat pump, P=5.1 kW, 77 kg/unit (One Click LCA)
SYSTEMS	Electric vertical bathroom radiator, wall mounted, 14 kg/unit, 600W/unit (One Click LCA)
SYSTEMS	Three phase stepper motor, 3-phase stepper - 0.51 Nm - shaft ÃƒËœ 6.35 mm - L=42 mm - w/o brake, 1.3 kg/unit, BRS364H030ABA (Schneider Electric)
SYSTEMS	Miniature circuit breaker, 2P, C curve, 0.233 kg/unit,C9,16A,400V, C9F18216 (Schneider Electric)
SYSTEMS	Circuit breaker, MOLDED CASE 600V 150A, 2.2 kg/unit, NJDL36150 (Schneider Electric)
SYSTEMS	Linear suspended luminaires, 8.887 kg/unit, 1600mm length, Selene 2 (Whitecroft Lighting Limited)
SYSTEMS	Headwall, reinforced concrete, XLarge, Ø1800 mm (Ø70 in)
SYSTEMS	Suspension bracket, 570 mm, 1.1406 kg/unit, FTB-570 (Gripple Ltd)
SYSTEMS	Indoor pendant lights, caramel finish, 500 h x 170 dia, 0,999 kg/unit, Hinaki 500 Caramel Finish (David Trubridge Limited (2020))
SYSTEMS	Prefabricated dormer from GRP, softwood and polyurethane foam, 193.39 kg/unit, Heritage Hipped Dormer 1810/1050/35° (Exallot Ltd)

Class	Material
SYSTEMS	Road lighting (3 materials), height 12 meters (39 ft), post diameter 152 mm (6 in)
SYSTEMS	Raised access flooring panels, chipboard in galvanized steel envelope, per unit, 600 x 600 mm, 11 kg/unit, RMG600 (Kingspan Access Floors)
SYSTEMS	Reinforcement steel (rebar), generic, 97% recycled content (typical), A615 (One Click LCA (2018))
SYSTEMS	Hot dip galvanized steel, 0.73 mm, 5.72 kg/m2, EN15804+A1, ref. year 2018
SYSTEMS	Prefabricated dormer from GRP, OSB and polyurethane foam, 213.73 kg/unit, Heritage Flat-top Dormer 1810/1050/40° (Exallot Ltd)
SYSTEMS	Elevator for passenger use, 10031 kg/unit, MiniSpace™ DX (KONE)
SYSTEMS	Adaptable walls with fabric-coated panels, 5m x 2.9m, 27 kg/unit, Adaptable Walls (Optima Products Limited)
SYSTEMS	Raised flooring panel with particle board core in a galvanised steel envelope, 600x600x30 mm, 10.5 kg/unit, RMG600 (Kingspan Data and Flooring)
SYSTEM	Air handling unit (AHU), large single family house grade, 1000 m3/h (35000 cuft), 130 kg/unit (One Click LCA)
EXTERNAL WORK	Crushed gravel (One Click LCA)
EXTERNAL WORK	Asphalt layer, thickness 120 mm (5 in)
EXTERNAL WORK	Asphalt, generic, compacted, 5/95% bitumen-aggregate ratio, 2350 kg/m3 (One Click LCA)
EXTERNAL WORK	Sett stone paving, 140x220x140 mm (5.5x8.7x5.5 in)
EXTERNAL WORK	Rectangular paving stone, Finnish average, 2700 kg/m3 (KIVI ry)
EXTERNAL WORK	Concrete paving blocks, 80 mm, 154 kg/m2, CORIO EcoTerra (METTEN Stein+Design)

Appendix G - Operational Waste Management Plan

STONEY WOOD QUARTER

Operational Waste Management Plan

Land north of The Fairway, London NW7 3HS
London Borough of Barnet

Prepared by:
London Placemaking
32 Tavistock Street, Covent Garden, London WC2E 7PB

On behalf of:
Stoney Wood Property Developments Ltd

November 2025

Document Control

Version	Date	Author	Status	Description
1.0	November 2025	London Placemaking	Planning	Initial issue

This Operational Waste Management Plan (OWMP) has been prepared by London Placemaking on behalf of Stoney Wood Property Developments Ltd in support of the detailed planning application for the Stoney Wood Quarter development. It should be read alongside the Design and Access Statement (November 2025) and all other documents submitted as part of the planning application.

1. Introduction

1.1 Purpose of this Document

This Operational Waste Management Plan (OWMP) sets out the approach to the storage, segregation, collection and management of refuse and recyclable waste arising from the Stoney Wood Quarter development once operational. It provides a comprehensive framework governing day-to-day waste handling for the 463 new residential homes, shared amenity spaces, and commercial uses (including the gym, café, co-working space, and community facilities) proposed on the site.

The OWMP has been prepared to:

- Demonstrate compliance with the London Borough of Barnet's waste and recycling requirements, as set out in the Local Plan, Waste and Recycling Strategy, and relevant Supplementary Planning Documents.
- Show alignment with the Mayor of London's London Plan (2021), including Policies SI7 (Circular Economy) and SI8 (Waste capacity and net self-sufficiency).
- Detail the underground proposed bin system proposed for the development and explain its suitability for this Build to Rent (BTR) context.
- Provide clear operational protocols for residents, the concierge management team, and the appointed waste collection contractor.
- Demonstrate that waste management will not give rise to adverse environmental, amenity or highway impacts.

1.2 The Development

Stoney Wood Quarter is a residential-led Build to Rent development comprising 463 new homes on a brownfield site north of The Fairway, Mill Hill, London NW7 3HS, within the London Borough of Barnet. The scheme is brought forward by Stoney Wood Property Developments Ltd.

The development is arranged across nine building blocks (A–I) and includes:

- 463 residential units comprising a mix of 1-bed, 2-bed, 3-bed, 4-bed and 5-bed apartments, maisonettes and townhouses
- 50% affordable housing (tenure-blind, pepper-potted throughout)
- Shared amenity provision including a gym, café, co-working space, indoor soft play area and clubhouse
- Extensive public realm with pedestrianised streets, pocket parks, play areas and woodland connections
- On-site concierge management

The scheme is designed as a professionally managed Build to Rent neighbourhood. The BTR operating model is central to the waste management strategy: a resident concierge will oversee day-to-day waste operations, ensuring the system functions effectively and maintains the high environmental standards of the public realm.

1.3 Policy and Regulatory Context

This OWMP has been informed by the following policy and regulatory framework:

National Policy

- National Planning Policy Framework (NPPF, 2023) — requires development to address waste management in support of a circular economy

- Waste (England and Wales) Regulations 2011 — establishes the waste hierarchy (prevention > reuse > recycling > recovery > disposal)
- Environment Act 2021 — introduces mandatory food waste collections and consistent recycling streams
- Building Regulations Part H — drainage and waste disposal requirements

London Plan (2021)

- Policy SI7: Circular Economy — development must minimise resource use and manage waste sustainably
- Policy SI8: Waste Capacity and Net Self-Sufficiency — supports net self-sufficiency in waste management within London
- Policy D3: Inclusive Design — ensuring waste storage and access is accessible to all
- GLA Circular Economy Guidance (2022)

London Borough of Barnet Local Policy

- Barnet Local Plan (2012, updated 2024) — Policy CS13 (Protecting and enhancing Barnet's open spaces) and DM04 (Environmental considerations for development)
- London Borough of Barnet Waste and Recycling Strategy

2. Waste Characterisation and Generation

2.1 Anticipated Waste Streams

The following waste streams will be generated by the development:

Waste Stream	Source	Collection Frequency
Residual (non-recyclable) waste	All residential units, amenity spaces, commercial uses	Weekly
Dry mixed recyclables (glass, cans, plastic, paper, card)	All residential units	Weekly
Food / organic waste	All residential units, café kitchen	Weekly
Bulky waste (furniture, white goods)	Residential units (move-in/move-out)	On request
Hazardous household waste	Residential units	By arrangement via LBB Hazardous Waste service
Electrical & electronic waste (WEEE)	Residential units and amenity areas	On request / designated collection events
Clinical waste	Potentially small number of residents	By specialist contractor if required
Commercial waste (gym, café, co-working)	Commercial units	Contracted separately to LBB or approved contractor

2.2 Waste Volume Calculation

Waste storage capacity has been calculated on a per-dwelling litre-allocation basis as set out in the Design and Access Statement (November 2025):

Unit Type	No. of Units	Residual Allocation (L)	Recycling Allocation (L)	Sub-total Residual (L)	Sub-total Recycling (L)
1-bed	167	100	100	16,700	16,700
2-bed	56	170	170	9,520	9,520
3-bed	229	240	240	54,960	54,960
4-bed/ 5-bed	11	310	310	3,410	3,410
TOTAL	463	—	—	84,590	84,590

Note: The residual total of 84,590L and recycling total of 84,590L confirms the requirement for 17 x 5,000L iceberg bins for residual waste and 17 x 5,000L for recycling — totalling 34 bins across the site. Each household will be provided with a 7-litre indoor food waste caddy.

2.3 Population Yield and Occupancy

Based on the GLA Population Yield Calculator (v3.2), the development is expected to accommodate approximately 1,079 residents at full occupancy. This figure has informed the waste generation assessment above and confirms that the proposed bin provision is appropriate and proportionate to the scale of the development.

3. Waste Storage — Iceberg Underground Bin System

3.1 System Overview

The proposed waste storage system for Stoney Wood Quarter is based on underground 'iceberg' bins, emptied by a HIAB-type refuse lorry. This approach has been selected as the primary waste storage solution for the development.

The system proposed is manufactured by Sulo, a leading European waste management solutions provider. The Sulo system is currently operational with other London boroughs, including the London Borough of Barking and Dagenham. FCC Waste, a contractor engaged by the London Borough of Barnet to manage refuse collection across the borough, is familiar with the Sulo iceberg system through its use across other London boroughs. Pre-occupation liaison between the applicant, LBB Waste Management and FCC Waste will be undertaken to confirm operational procedures and service arrangements prior to first occupation.

3.2 Technical Description

Each iceberg bin unit consists of a below-ground container (the 'iceberg') of 5,000 litres capacity, accessed via a kerbside inlet hopper at surface level. The above-ground element is compact, typically 800mm in height and designed to integrate discreetly into the streetscape. The container is emptied by a HIAB-equipped vehicle which lifts the bin using a hydraulic crane arm — a process which takes approximately 3–5 minutes per bin location and does not require the refuse vehicle to mount kerbs or access pedestrian areas.

Key technical parameters:

Parameter	Detail
Bin manufacturer	Sulo (or equivalent approved by LBB)
Container capacity	5,000 litres per bin
Surface footprint	Approximately 800mm above ground
Collection vehicle	HIAB-type lorry (hydraulic crane arm lift)
Number of residual waste bins	17 no.
Number of recycling bins	17 no.
Total bins on site	34 no. (plus supplementary central point)
Smart / connected functionality	Yes — fill level sensor alerts concierge when full
Security	Lockable inlet hopper to prevent misuse
Food waste	7L indoor food waste caddy per household. Communal food waste collected via: (a) dedicated food waste iceberg bin(s) on service road; or (b) LBB-supplied communal bins at the concierge refuse point — option to be agreed with LBB prior to first occupation. Food waste is not co-mingled with residual waste.

3.3 Site Distribution and Coverage

The iceberg bins will be positioned at regular intervals along the shared service route and at strategic nodes within the development; this layout has been designed to ensure that:

- Approximately 96% of homes are within 40 metres of a disposal point

- The remaining 4% of homes (approximately 19 units) are served by a central refuse point, located within easy reach of the concierge and managed as part of the regular emptying routine
- Bins are not visible from principal public streets, preserving the quality of the pedestrian environment
- Collection vehicles can access all bin locations from the shared service road without entering the pedestrianised street network
- The service road is secured by lockable retractable bollards (with fireman's key access) to restrict use to refuse collection vehicles, emergency services, and occasional resident removal vehicles

3.4 Rationale for Iceberg Bin System

The iceberg bin system has been selected in preference to a conventional bin store arrangement for the following reasons:

Benefit	Detail
Resident experience	Residents deposit waste via a surface-level inlet hopper — they never need to enter an enclosed, potentially unpleasant bin store space
Pest and vermin control	The underground sealed system eliminates the thermal and moisture conditions that attract vermin, which are commonly associated with traditional above-ground communal bin stores
Public realm quality	The compact surface footprint means the bins have negligible visual impact, preserving the character of the picturesque, pedestrianised streets
Operational efficiency	A single HIAB vehicle can serve all 34 bin locations in one continuous route along the service road, without requiring access to the pedestrianised street network or multiple vehicle manoeuvres around conventional bin store enclosures
Space efficiency	The space within buildings that would otherwise be dedicated to bin stores is freed up for high-quality cycle storage
Smart management	Integrated fill-level sensors allow the concierge to monitor bin capacity in real time and request collections only when needed, reducing unnecessary vehicle movements
Proven technology	The Sulo iceberg system is operational across other London boroughs including Barking and Dagenham. FCC Waste, Barnet's existing refuse contractor, is familiar with the system through its London-wide operations. Pre-occupation liaison with LBB and FCC will confirm service arrangements

3.5 Commercial and Amenity Uses

Waste from the commercial and amenity uses within the development (gym, café, co-working space, soft play, clubhouse) will be managed as follows:

- Commercial food waste from the café will be segregated into dedicated food waste containers and collected separately in accordance with Environment Act 2021 requirements and LBB guidance

- Dry recyclables from commercial uses will be segregated and deposited via the shared iceberg system, subject to agreement with LBB, or via a dedicated commercial recycling contract
- Bulky commercial waste will be managed via the concierge and disposed of through the building management's contracted waste service

4. Waste Segregation and Recycling

4.1 In-Dwelling Segregation

To facilitate high rates of waste segregation at source, kitchens within each dwelling will be designed to incorporate built-in segregated waste storage. Each kitchen will feature a minimum of three internal compartments:

1. Residual (non-recyclable) waste
2. Dry mixed recyclables (glass, cans, plastic, paper, card)
3. Food / kitchen organic waste (using the 7L indoor caddy provided)

This is consistent with the London Borough of Barnet's Waste and Recycling Strategy and with the GLA's guidance on household waste segregation. The built-in kitchen storage will be detailed within the interior design specification.

4.2 Communal Recycling

The iceberg bin system provides separate containers for residual waste and dry mixed recyclables, clearly identified by colour-coding and labelling in accordance with LBB and national recycling stream conventions. Food waste will be managed in accordance with LBB's adopted approach, which may involve separate dedicated food waste iceberg bins or collection by a designated food waste vehicle.

4.3 Resident Engagement and Education

The BTR management model provides an excellent opportunity to embed good waste behaviours from the outset. The following measures will be implemented:

- A Welcome Pack provided to all new residents will include clear and accessible guidance on the waste segregation system, bin locations, collection days, and what materials can be recycled
- Illustrated signage will be affixed to each bin inlet point, indicating which materials should be deposited
- The concierge team will be briefed to advise residents who are uncertain about the system
- Digital communications via the resident app (or equivalent BTR resident platform) will provide ongoing updates on collection schedules, recycling tips and any service changes
- Annual resident surveys will include questions on waste management satisfaction to inform ongoing improvement

4.4 Bulky Waste

Given the BTR tenure model, resident turnover will result in periodic bulky waste arisings (furniture, white goods, etc.). The following arrangements will apply:

- Residents wishing to dispose of bulky items will notify the concierge in advance
- The concierge will coordinate with LBB's bulky waste collection service (or a licenced waste contractor) to arrange removal
- The concierge will also facilitate reuse opportunities — for example by notifying residents of items available for collection by other residents, and by maintaining contact with local reuse organisations

5. Collection Operations

5.1 Collection Vehicle Access

The shared service road running along the periphery of the development has been designed to accommodate refuse collection vehicles. The road is:

- Accessible from The Fairway via the main site entrance (adjacent to the below-ground parking ramp)
- Supplemented by an emergency/service vehicle exit at the northern edge of the site
- Secured by lockable retractable bollards at each end, with fireman's key (or agreed equivalent) access for refuse vehicles and emergency services
- Designed as a shared surface, with vehicle speeds limited to ensure pedestrian safety

The HIAB refuse vehicle collecting the iceberg bins operates from the service road and does not need to enter the pedestrianised street network. The vehicle uses its hydraulic crane arm to lift bins from their positions adjacent to the road edge, minimising the time spent on site and the disruption to residents.

5.2 Collection Frequency

The indicative collection schedule is set out below. Final frequencies will be agreed with LBB Barnet Waste Management in advance of first occupation:

Waste Stream	Proposed Frequency	Collection Vehicle	Notes
Residual waste	Weekly	HIAB lorry	Smart sensors enable 'as required' scheduling
Dry mixed recycling	Weekly	HIAB lorry	Separate iceberg bins
Food waste (residential)	Weekly	LBB food waste vehicle or HIAB	LBB weekly food waste collection launches 30 March 2026. Final collection method (iceberg or communal bin at concierge point) to be confirmed with LBB prior to occupation
Commercial food waste (café)	As required	Specialist contractor	Subject to café operator agreement
Bulky waste	On request	LBB bulky waste vehicle	Pre-booked by concierge
WEEE	On request	WEEE contractor or LBB	Collection events / drop-off

5.3 Contingency Arrangements

The following contingency measures will apply to ensure continuity of waste management in the event of equipment failure, service disruption or exceptional demand:

- Sensor failure: if fill-level sensors malfunction, the concierge will revert to a scheduled collection programme (at minimum weekly for residual and recycling) until sensors are repaired. Sensor faults will be reported to the system supplier within 24 hours

- Blocked inlets or contaminated loads: the concierge will arrange prompt clearance of blocked inlet hoppers. Contaminated bins will be flagged to the contractor; temporary above-ground wheeled bins (supplied from a reserve held on site or by the management company) will be deployed adjacent to the affected location pending resolution
- HIAB vehicle breakdown or missed collections: if the collection vehicle is unable to attend on the scheduled day, the contractor will arrange an alternative collection within 48 hours. The concierge will notify residents and, if necessary, deploy temporary above-ground capacity to prevent overflow
- Seasonal or peak demand overflow (e.g. move-in/move-out periods): the concierge will monitor fill-level data and request additional collections in advance of known high-demand periods. The BTR management company will maintain a protocol for managing bulky waste and excess packaging at move-in events

5.4 Smart Bin Management

The Sulo iceberg bins will be equipped with fill-level sensors that transmit real-time data to the on-site concierge. This enables:

- Proactive collection requests to be made to FCC Waste when bins approach capacity, avoiding overflow
- Collection scheduling to be optimised, reducing unnecessary vehicle trips
- The concierge to identify patterns of high usage (e.g. at move-in/out periods) and pre-plan additional collections accordingly
- Performance data to be compiled to support annual reporting to LBB on waste diversion rates and recycling performance

6. Management Roles and Responsibilities

6.1 Overview

Stoney Wood Quarter will be operated by a professional Build to Rent management company. The management company will employ an on-site concierge team responsible for the day-to-day management of all communal services, including waste.

6.2 Roles and Responsibilities

Role	Party	Key Waste Management Responsibilities
BTR Management Company	Appointed by LBB	Overall responsibility for waste service performance; contract management with waste contractor; annual reporting; policy updates
On-Site Concierge	BTR Management Company staff	Day-to-day monitoring of bin fill levels; contacting contractor to arrange collections; supporting residents with queries; managing bulky waste bookings; maintaining communal bin areas
Waste Collection Contractor	LBB / FCC Waste (or appointed equivalent)	Emptying iceberg bins; food waste collection; bulky waste collection; provision of performance data
Residents	Individual tenants	Correct segregation of waste at source; use of designated inlet points; compliance with estate rules on waste disposal
Café / Commercial Operator	Commercial tenant(s)	Compliance with commercial waste segregation; contractor engagement for commercial food waste and cooking oil

6.3 Tenancy Agreement Obligations

The BTR tenancy agreement will include specific obligations relating to waste management. These will include:

- Using the designated waste inlet points and segregating waste correctly
- Not depositing waste outside of designated disposal points
- Not depositing hazardous, clinical or commercial quantities of waste in the communal bins
- Notifying the concierge for bulky waste or WEEE disposal
- Compliance with the estate's waste management policy, to be published on the resident portal

7. Circular Economy and Sustainability

7.1 Alignment with Circular Economy Principles

The waste management strategy for Stoney Wood Quarter has been developed in accordance with London Plan Policy SI7 and the GLA Circular Economy Guidance, supporting the transition to a more regenerative built environment. Key measures include:

- In-dwelling three-compartment segregation to maximise diversion of recyclable and food waste from landfill
- Smart bin technology enabling demand-led collection and minimising unnecessary vehicle movements
- A target of at least 95% diversion of operational waste from landfill through recycling, composting and energy recovery, of which a minimum of 50% through recycling and composting (i.e. excluding energy recovery)
- Bulky waste reuse facilitation through the concierge, encouraging residents to offer unwanted furniture and goods to others before disposal
- Annual waste data monitoring and reporting to track recycling rates and identify opportunities for improvement

7.2 Food Waste

In line with the Environment Act 2021 and LBB's evolving food waste collection service, the following measures will support high rates of food waste diversion:

- Each household will receive a 7-litre indoor food waste caddy as part of their welcome pack
- Compostable caddy liner bags will be provided or made available to purchase through the resident portal
- Two collection options will be agreed with LBB Barnet Waste Management prior to first occupation: (a) one or more dedicated food waste Sulo iceberg bins positioned on the service road, colour-coded and collected weekly by LBB's food waste vehicle; or (b) one or more communal LBB-supplied food waste bins (240L) located at the concierge-managed central refuse point, presented for weekly collection on the same day as other collections. The preferred option will be confirmed following pre-occupation discussions with LBB and FCC Waste
- Residents will empty their 7L indoor caddy into the communal food waste point (iceberg inlet or bin at concierge point). The concierge team will ensure the collection point is accessible, clean and clearly signposted at all times
- Food waste infrastructure will be confirmed on the site waste plan and reflected in updated drawings prior to submission of any pre-occupation compliance condition.

8. Monitoring, Review and Reporting

8.1 Performance Targets

The following performance targets will be adopted for the operational phase of the development:

Indicator	Target	Review Period
Diversion of waste from landfill	Minimum 95%	Annual
Dry recycling capture rate (residential)	Minimum 50% of total waste	Annual
Food waste capture rate (residential)	Minimum 30% of total organic waste	Annual (once LBB food waste service operational)
Bin overflow incidents	Zero reported incidents per quarter	Quarterly
Resident satisfaction with waste service	Minimum 80% satisfied	Annual (resident survey)
Concierge waste training completion	100% of concierge staff	On appointment and annually

8.2 Annual Review

The BTR Management Company will conduct an annual review of waste performance against the targets set out above. The review will consider:

- Waste tonnage data (residual, recycling, food waste) provided by the collection contractor
- Resident satisfaction survey results
- Any incidents of contamination, overflow, or misuse
- Updates to LBB waste policy or collection arrangements
- Any changes to the commercial tenancy waste arrangements

A summary report will be made available to LBB on request.

8.3 Adaptive Management

Where performance targets are not being met, the BTR Management Company will develop and implement an action plan in consultation with LBB. Actions may include additional resident communication campaigns, changes to collection frequency, or physical modifications to bin provision. Any material changes to the waste management strategy will be notified to LBB in writing.

9. Summary and Conclusions

This Operational Waste Management Plan demonstrates that the Stoney Wood Quarter development will be served by a robust, innovative and compliant waste management system throughout its operational life. The key conclusions are as follows:

1. The Sulo iceberg (underground) bin system has been selected as the primary waste storage solution. The system eliminates the need for above-ground bin stores, significantly improves resident experience, and is already proven within the London waste management landscape through its use by FCC Waste, Barnet's existing refuse contractor.
2. Waste storage capacity has been calculated on a per-dwelling litre-allocation basis; 17 x 5,000L iceberg bins for residual waste and 17 x 5,000L for recycling (34 total) will be provided, serving approximately 96% of homes within 40 metres. The remaining 4% (approximately 19 units) will be served by a central concierge-managed refuse point.
3. In-dwelling segregation will be facilitated by integrated three-compartment kitchen bins, encouraging separation of residual waste, dry recyclables and food waste at source.
4. The BTR operating model — with a professional on-site concierge, smart bin technology, and a management framework that embeds waste responsibilities in both the tenancy agreement and management protocols — provides an exceptionally strong platform for achieving high recycling rates.
5. The proposed system has been designed to comply with the intent of the London Borough of Barnet's Waste and Recycling Strategy, the London Plan (Policies SI7 and SI8), and the Mayor of London's GLA Circular Economy Guidance.
6. The collection vehicle access strategy ensures that refuse vehicles can service all bin locations from the peripheral service road without entering the pedestrianised streets, preserving the quality of the public realm and the safety of residents.

Appendix A: Relevant Policy Summary

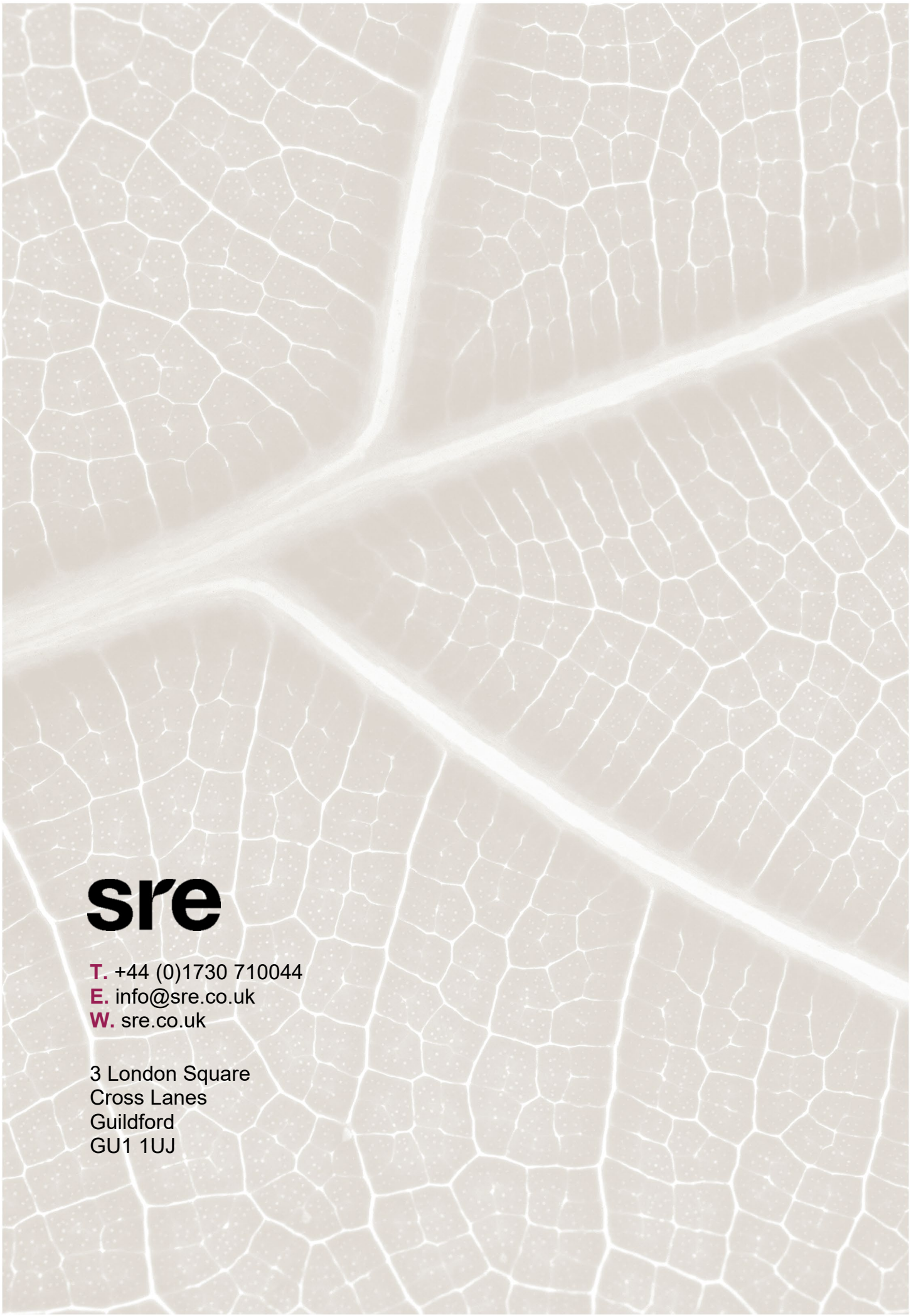
Policy / Document	Relevance
NPPF (2023)	Waste hierarchy; circular economy; sustainable development
Waste (England and Wales) Regulations 2011	Legal framework for waste hierarchy
Environment Act 2021	Mandatory food waste collection; consistent recycling streams
London Plan (2021) — SI7	Circular Economy compliance in development
London Plan (2021) — SI8	Waste self-sufficiency; encouraging sustainable waste management
London Plan (2021) — D3	Inclusive design of waste storage and access
GLA Circular Economy Guidance (2022)	Detailed guidance on circular economy requirements
Barnet Local Plan	Policy DM04: Environmental considerations including waste
Barnet Waste and Recycling Strategy	LBB-specific waste allocation and collection requirements
Barnet Sustainable Design and Construction SPD (2016)	Sustainability requirements including waste minimisation
BS8233:2014	Acoustic guidance informing servicing arrangements

Appendix B: Iceberg Bin System — Key Specifications

The following provides a summary specification for the Sulo underground iceberg bin system proposed. Final specification to be agreed with LBB Barnet Waste Management prior to installation.

Specification Item	Detail
Manufacturer	Sulo (or approved equivalent acceptable to LBB and FCC Waste)
System type	Semi-underground waste container with surface-level inlet hopper
Container volume	5,000 litres per unit
Above-ground height	Approximately 800mm
Collection method	HIAB lorry with hydraulic crane arm
Waste streams accommodated	Residual waste; dry mixed recyclables; food waste (subject to separate container or co-collection agreement)
Fill-level sensor	Integrated IoT sensor transmitting real-time fill data to concierge management system
Security	Lockable hinged inlet hopper with anti-vandal specification

Colour coding	To LBB / national recycling stream convention (grey/black = residual; blue = recycling; brown/green = food waste)
Precedent boroughs	London Borough of Barking and Dagenham (operational); further precedents available on request from Sulo
Current Barnet operator	FCC Waste (existing LBB waste contractor)



T. +44 (0)1730 710044
E. info@sre.co.uk
W. sre.co.uk

3 London Square
Cross Lanes
Guildford
GU1 1UJ