ELEMENT SUSTAINABILITY

CHAPELTOWN STREET, MANCHESTER

CIRCULAR ECONOMY STATEMENT

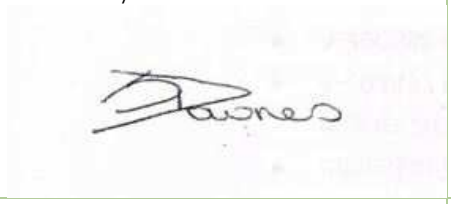
OCTOBER 2025

REF: 2025.208



ELEMENT SUSTAINABILITY – ISSUE NOTES

Project No:	2025.208
Title:	Chapeltown Street, Manchester Circular Economy Statement
Client:	Chroma Consulting
Status:	Final

Version:	1.1	
Date:	October 2025	
Prepared by: 	Checked by: 	Approved by: 
Ellie Greenhill Sustainability Consultant	Stacey Downes Principal Sustainability Consultant	Laurie Wills Director

Version	Version Details	Date Issued	Issued by:
0.0	Draft for client comment	08.10.2025	EG
1.0	Final	08.10.2025	EG
1.1	Minor amendments	09.10.2025	EG

ELEMENT SUSTAINABILITY

phone: 01829 733 444

email: hello@elementsustainability.co.uk

www: www.elementsustanability.co.uk

© Report copyright of Element Sustainability Ltd.

Disclaimer
This report has been prepared for the sole use of the client, showing reasonable skill and care, for the intended purposes stated in the agreement under which this work was completed. It is not intended for and should not be relied upon by any third party. Any such party relies on this report at their own risk. No part of this report may be copied or duplicated without the express permission of Element Sustainability Ltd. and the party for whom it was prepared.

CONTENTS

1. INTRODUCTION 1
2. SITE CONTEXT 2
3. PLANNING POLICY 4
3.1 National Planning Policy 4
3.1.1 National Planning Policy for Waste 4
3.2 Local Planning Policy 5
3.2.1 Manchester Core Strategy 5
3.2.2 Greater Manchester Joint Waste Development Plan (2012) 5
3.2.3 Places for Everyone 6
3.2.4 Sustainable Consumption & Production Plan 2022-2025 6
4. CIRCULAR ECONOMY GUIDANCE 8
4.1 Circular Economy Principles 8
4.2 Best Practice Guidance 8
4.2.1 Circular Economy Principles for Building Design 8
4.2.2 UK Green Building Council (UKGBC) Circular Economy Principles and Metrics for Construction 9
4.2.3 The Waste Hierarchy 10
4.2.4 Mayor of London Circular Economy Guidance 11
4.2.5 London Plan Circular Economy Principles 11
5. CHAPELTOWN STREET CIRCULAR ECONOMY PRINCIPLES 12
5.1 Designing Out Waste 13
5.2 Maximising Resource and Material Efficiency 14
5.3 Demolition and Excavation Waste Management 14
5.4 Designing for Building Optimisation 14
5.4.1 Designing for Longevity 14
5.4.2 Designing for Adaptability 14
5.4.3 Designing for Disassembly 15
5.5 Locally and Responsibly Sourced Materials 15
6. CIRCULAR ECONOMY MONITORING FRAMEWORK 16
7. CONCLUSION 17

1. INTRODUCTION

Element Sustainability have been commissioned by Chroma Consulting to prepare a Circular Economy Statement for the proposed Chapeltown Street fifteen storey residential development, in Manchester.

The purpose of this statement is to outline the circular economy principles that will be embedded within the schemes design proposals in order to facilitate a circular economy approach. Applying principles demonstrates how the development will reduce its carbon emissions and waste production in practice, in line with relevant local and national guidance.

The Circular Economy Statement should be read in conjunction with the Design and Access Statement and other supporting documents.

2. SITE CONTEXT

The site is located in central Manchester accessed of Chapeltown Street to the north as shown in figure 2.1 and 2.2. The site is currently brownfield land. Surrounding site uses are predominately residential to the north and west, and industrial to the south beyond the Metrolink route.

Figure 2.1 – Proposed Development Site

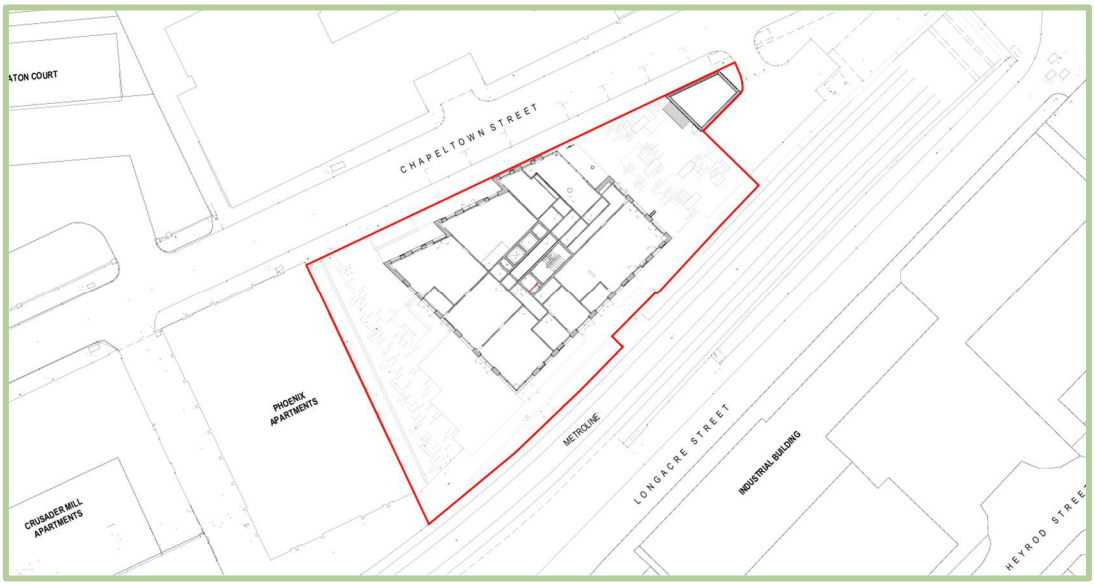


Figure 2.2 – Proposed Site Plan



The scheme proposes a 15-storey building comprising 107 apartments, residential amenity facilities including a roof terrace, two ground floor commercial units, multipurpose event pavilion and associated landscaping. Figure 2.3 below shows the proposed development plan.

Figure 2.3 – Proposed Development Plan



3. PLANNING POLICY

3.1 National Planning Policy

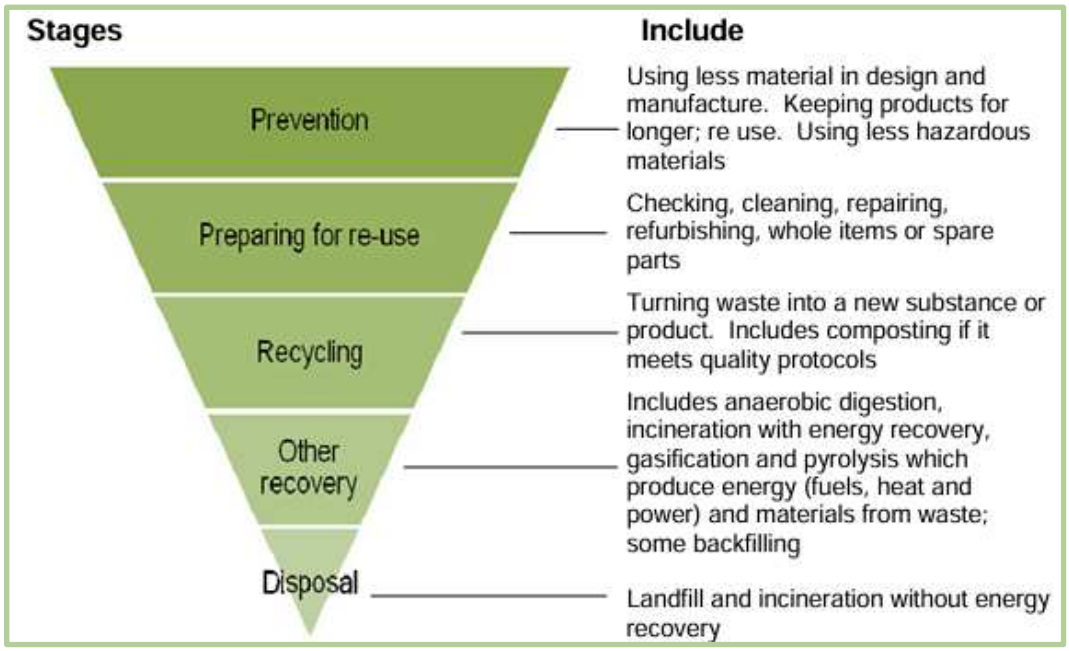
3.1.1 National Planning Policy for Waste

The National Planning Policy for Waste (2014)[1] outlines the Government's objectives for sustainable waste management in England. The policy encourages movement of waste management up the waste hierarchy, prioritising prevention, reuse and recycling over recovery and disposal. The waste hierarchy can be used to help establish circular economy principles.

The Waste Hierarchy (figure 3.1.1) as per the National Planning Policy for Waste, states the following:

- the most effective environmental solution is often to reduce the generation of waste, including the re-use of products – prevention
- products that have become waste can be checked, cleaned or repaired so that they can be re-used – preparing for re-use
- waste materials can be reprocessed into products, materials, or substances – recycling
- waste can serve a useful purpose by replacing other materials that would otherwise have been used – other recovery
- the least desirable solution where none of the above options is appropriate – disposal

Figure 3.1 – The Waste Hierarchy [2]



Source: Guidance on applying the Waste Hierarchy, DEFRA

[1] https://www.gov.uk/government/publications/national-planning-policy-for-waste

[2] https://www.gov.uk/government/publications/guidance-on-applying-the-waste-hierarchy

With regard to new non-waste developments, the National Planning Policy for Waste requires local planning authorities to ensure, to the extent appropriate to their responsibilities, the following as per paragraph 8:

> *''the likely impact of proposed, non-waste related development on existing waste management facilities, and on sites and areas allocated for waste management, is acceptable and does not prejudice the implementation of the Waste Hierarchy and/or the efficient operation of such facilities;*
>
> *new, non-waste development makes sufficient provision for waste management and promotes good design to secure the integration of waste management facilities with the rest of the development and, in less developed areas, with the local landscape. This includes providing adequate storage facilities at residential premises, for example by ensuring that there is sufficient and discrete provision for ins, to facilitate a high quality, comprehensive and frequent household collection service;*
>
> *the handling of waste arising from the construction and operation of development maximises reuse/recovery opportunities, and minimises off-site disposal.''*

3.2 Local Planning Policy

3.2.1 Manchester Core Strategy

Manchester's Core Strategy was adopted on 11th July 2012. The strategy sets out the long-term strategic policies for Manchester's future development and will form the framework that planning applications will be assessed against.

The following relevant policies have been reviewed to ensure that the intent behind the principles of a circular economy, namely resource conservation and climate change mitigation, have been captured within the design proposals of the development:

- Policy EN4 – Reducing CO_2 Emissions by Enabling Low and Zero Carbon Development calls for the use of sustainable building materials with low embodied carbon.
- Policy EN8 – Adaptation to Climate Change requires all new development to be adaptable to climate change in terms of the design, layout, siting and function of both buildings and associated external spaces.
- Policy EN19 – Waste calls for proposals to demonstrate their alignment with the Waste Hierarchy principles. In addition, the policy requires the provision of sustainable waste management measures that promote a close-loop system.

3.2.2 Greater Manchester Joint Waste Development Plan (2012)

The Greater Manchester Joint Waste Development Plan's objective is for the movement of waste up the waste hierarchy in order to maximise the diversion of waste from landfills. In addition, the plan recognises the need to adapt to climate change through measures that seek to improve energy efficiency and reduce carbon dioxide (CO_2) emissions.

3.2.3 Places for Everyone

Places for Everyone is the joint development plan of nine Greater Manchester local authorities (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford, and Wigan) dealing with strategic planning issues including jobs, homes, transport, and the natural environment.

All nine authorities adopted the PfE Plan on 21st March 2024. Therefore, this is now part of the statutory development plan for each of the nine PfE authorities.

As a result, the following polices have been considered as part of the proposed development:

Policy JP-S1: Sustainable Development: Climate change is a key theme running throughout the plan, rather than being reduced to a single policy, and it is only through this combination of actions that it can be properly addressed. In particular we set out:

- Methods to de-carbonise the city region through new and existing development, effective land management and through the provision of infrastructure and new technologies Policy JP-S2 'Carbon and Energy'; and,

- Measures to help achieve a circular and zero-waste economy Policy JPS6 'Resource Efficiency'.

Policy JP-S6: Resource Efficiency: The achievement of a circular economy and a zero-waste economy will play a key role in meeting Greater Manchester's ambition of becoming a leading green city region by 2038. The following measures will help achieve this:

- Development and implementation of the Zero Waste Strategy for Greater Manchester which promotes overall reduction in the level of waste produced and supports resource efficiency within the Plan area in order to gain the maximum value from the things we produce; and,

- Using sustainable design and construction techniques to reduce carbon emissions, adapt and future proof to the impact of climate change, reduce and recycle waste and minimise water use.

3.2.4 Sustainable Consumption & Production Plan 2022-2025

Table 3.2 below sets out the target indicators used by the Greater Manchester Combined Authority (GMCA) to track and measure progress under the four priorities of the Sustainable Consumption Plan (SCP), which are as follows:

Table 3.2 - GMCA Priorities

SCP Priority	Target Indicator
Moving to a circular economy	• 38% reduction in industrial emissions by 2025 and a 50% - 77% reduction by 2038. • Reduction in raw material consumption
Managing waste as sustainably as possible	• 65% recycling rate for municipal solid waste and no more than 10% to landfill by 2035.
Reducing avoidable food waste	• Reduction in avoidable food waste working towards the Government's Resources and Waste Strategy ambition of eliminating avoidable waste of all kinds by 2050.
Moving to a sustainable lifestyle	• Reduction in residual waste sent to landfill and incineration.

4. CIRCULAR ECONOMY GUIDANCE

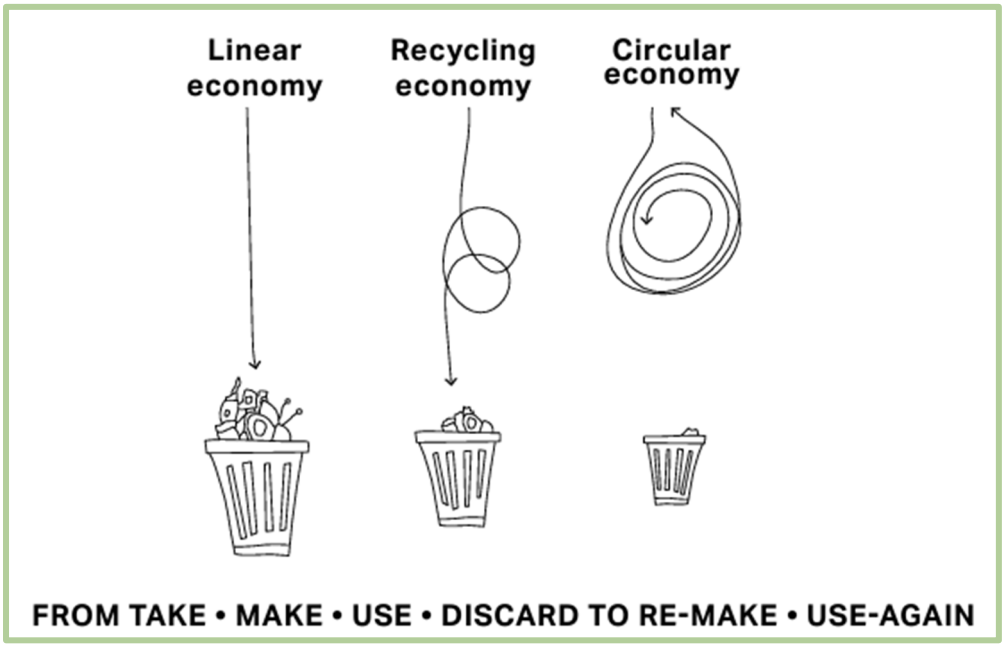
4.1 Circular Economy Principles

Circular Economy is typically defined as a closed-loop system where resources are retained for as long as possible and re-used and recycled continuously so that there is minimal or zero waste sent to landfill.

Often the by-product of one material becomes the raw material for another activity, so that there is a reduced demand for additional resource inputs, and as a result a smaller carbon footprint. A circular economy differs significantly from a linear one, where resources are used inefficiently and subsequently sent to landfill, or when resources are recycled but eventually still end up in landfill.

Figure 4.1 below shows the three types of economy principles, and highlights changes that need to be considered in the design of new developments.

Figure 4.1: A Comparison of Linear, Recycling, and Circular Economy Models



Source: Mayor of London Circular Economy Guidance, 2021

4.2 Best Practice Guidance

4.2.1 Circular Economy Principles for Building Design

The European Commission issued the Circular Economy – Principles for Building Design guidance in 2020 to present a set of principles for stakeholders within the built environment sector. The objective of these principles was to help design sustainable buildings with the aim to create less waste during the lifecycle of the development and facilitate the reuse and recycling of materials.

The core principles of the Circular Economy – Principles for Building Design guidance relate to:

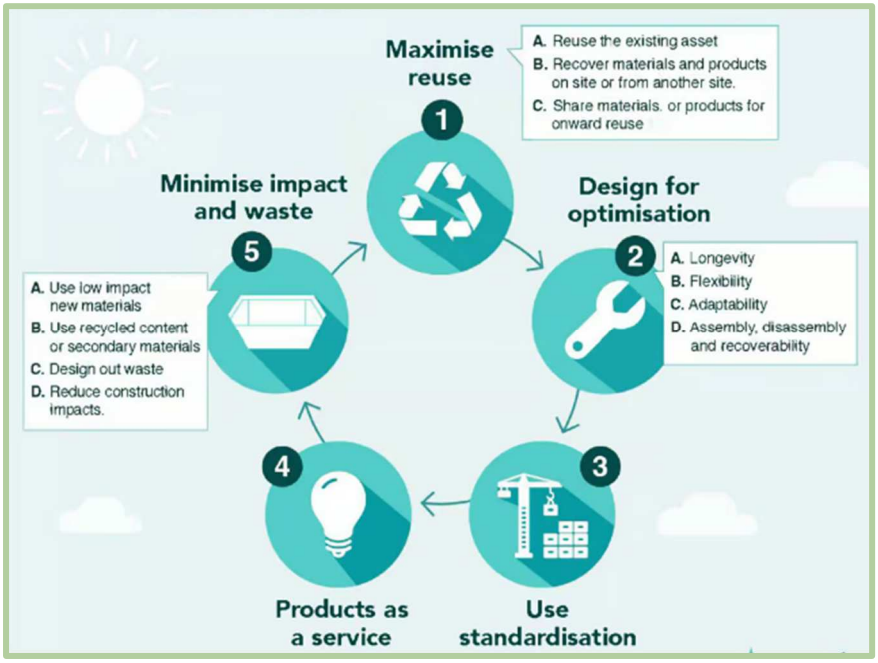
- **Durability:** buildings to be better designed and improved construction systems that can extend the longevity of the materials;
- **Adaptability**: buildings to be adaptable for future transformations where the buildings and their components can be re-used and recycled; and
- **Management of Waste**: buildings to encourage occupants to be able to reuse, reduce, recycle, and recover products where possible and using recycled products in construction.

4.2.2 UK Green Building Council (UKGBC) Circular Economy Principles and Metrics for Construction

First laid out in the UKGBC 2019 circular economy guidance for construction clients, the following circular economy principles for buildings demonstrate how to incorporate circularity at each lifecycle stage:

- Maximise reuse (including refurbish and repurpose),
- Design buildings for optimisation,
- Use standardisation,
- Products as a service, and,
- Minimise impact and waste.

Figure 4.2 – Circular Economy Principles for Construction



Source – UK Green Building Council

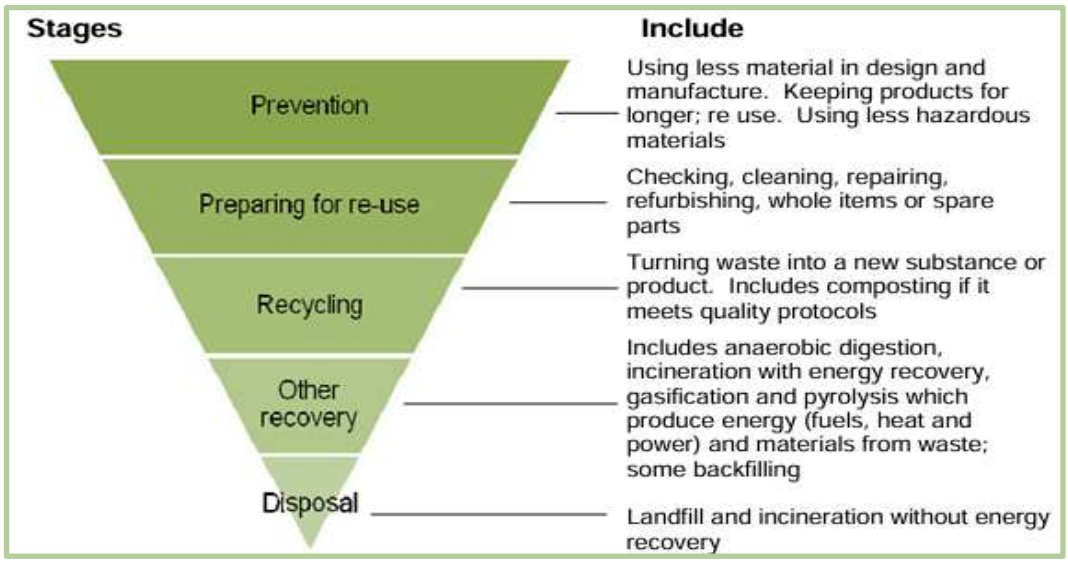
In addition to these principles, the UKGBC Circular Economy Forum has also developed the following seven circular economy metrics for buildings:

- Dematerialisation (Upfront), kg/m^2 GIA,
- Dematerialisation (Life Cycle), kg/m^2 GIA,
- Design for Disassembly & Re-use, % (tonnes),
- Material:
    - Re-used % (tonnes),
    - Remanufactured % (tonnes), and,
    - Recycled % (tonnes).
- Material Database and Passport % (tonnes),
- Design for adaptability % (Area), and,
- Embodied Carbon ($kgCO_2e/m^2$ GIA).

4.2.3 The Waste Hierarchy

As outline in the National Planning Policy for Waste, the waste hierarchy is a key tool that ranks waste management options (top to bottom) from the best option for the environment (prevention) to the least preferred option (landfill disposal), as depicted in figure 4.3 below, and is integrated into waste management policy.

Figure 4.3 – The Waste Hierarchy [3]



[3] https://www.gov.uk/government/publications/guidance-on-applying-the-waste-hierarchy

4.2.4 Mayor of London Circular Economy Guidance

The proposed Chapeltown Street development is not located within the Greater London area, however, the guidance set out within the Mayor of London Circular Economy Guidance document is aligned with the requirements of adopted policies relating to CE, and as such will also be used to inform the best practice circular economy commitments for this development.

4.2.5 London Plan Circular Economy Principles

The following six principles are listed within the London Plan Guidance and have therefore also been considered as a fundamental part of the building design process:

1. Building in layers – ensuring that different parts of the building are accessible and can be maintained and replaced where necessary;
2. Designing out waste – ensuring that waste reduction is planned in from project inception to completion, including consideration of standardised components, modular build, and reuse of secondary products and materials;
3. Designing for longevity;
4. Designing for adaptability or flexibility;
5. Designing for disassembly; and,
6. Using systems, elements or materials that can be reused and recycled.

These principles align with the UKGBC principles and support the application of the waste hierarchy, in that measures to avoid or reduce waste are prioritised.

5. CHAPELTOWN STREET CIRCULAR ECONOMY PRINCIPLES

This statement has been prepared in line with national and local planning policy and current industry best practice, which aims to reflect the following key circular economy principles, which have been considered as part of the design of the development.

In order to accurately identify the key circular economy principles that will be implemented as part of the proposed design, a workshop was held with key members of the design team to discuss all of the potential circularity measures. The items highlighted throughout Section 5 of this report were provided and committed to by the design team which comprised of:

Building Design Partnership
WML Consulting Ltd
Torsion Construction
Chroma Consulting
Element Sustainability Limited

Table 5.1 – Chapeltown Street Circular Economy Principles

Principles	Explanation
Maximise reuse (including refurbish and repurpose)	• Reuse the existing asset • Recover materials and products on site or from another site • Share materials or products for onward reuse
Design buildings for optimisation	• Design for longevity • Design for flexibility • Design for adaptability • Design for assembly, disassembly and recoverability
Use standardisation	• Standardised, modular elements in buildings are created with less waste and are easier to reuse for example plasterboard, timber lengths, tiles, bricks etc.
Minimise impact and waste	• Use low impact new materials • Use recycled content or secondary material • Design out waste • Reduce construction impacts

5.1 Designing Out Waste

Waste is a misuse of resources and can have a detrimental impact on the environment. Therefore, the design team has considered ways to reduce the amount waste generated as part of the construction and operation phases throughout the design process.

The following measures have been taken to maximise resource efficiency and limit the amount of waste generated as a direct result of the proposed development:

Pre-Construction

Prior to commencement of the construction phase, the site waste management plan (SWMP) will be referred to in order to limit and manage the on and off-site waste produced through development construction. The SWMP will detail:

- Recycled and secondary materials;
- Wast reduction;
- Waste segregation;
- Waste recovery; and,
- Waste disposal.

Construction

- Utilising standardised materials and optimising their application throughout the scheme will help to reduce the amount of waste generated.

- The building design has been designed to accommodate brick dimensions, to also reduce the need for cutting.

- The façade intentionally benefits from a repeating pattern that can be mass produced. Thereby limiting the number of variables and the need to cut materials to different sizes.

Operation

The operational waste strategy for the scheme focuses on the segregation of waste at source, to maximise the potential for residents and visitors to recycle in accordance with Manchester City Council Core Strategy Policy EN19.

The proposed strategy has been developed in compliance with the above policy:

- Waste will be segregated at the source with the help of segregated bins. It is expected that there will be multiple streams of waste – general, recyclables and compost / green waste.

- The number of bins and subsequently the size of the refuse store is based on projected waste generation figures for the building.

- Signage will be posted across the development to show the location of the bins and information on recycling will be provided to all building users.

- The proposed development will seek to target 65% recycling rate for municipal solid waste and no more than 10% to landfill by 2035 in line with the GMCA targets.

5.2 Maximising Resource and Material Efficiency

In order to minimise the quantity of materials required for the site, to minimise waste, the following measures will be implemented within the developments design proposals:

- The development will be designed with efficient structural design to optimise material use without compromising strength and safety.
- Designing to a simple material palette to allow for inherent efficiency in the detailing of the building and junctions required.
- The apartment design approach uses an exposed aesthetic soffit, this minimises the need for ceilings within the project and removes large areas of additional trades.
- Designs will be made with standard dimensions in mind, where spaces are designed to match standard materials (for example: plasterboard, timber lengths, tiles, bricks etc.) to minimise offcuts.
- Where off cut waste is generated, re-use through suppliers will be sought.

5.3 Demolition and Excavation Waste Management

With regard to demolition, the site is currently a vacant plot of grassed over brownfield land, therefore, there are minimal existing assets to reuse. The development will consider implementing the following measures to manage any demolition and excavation waste that is created, in line with the waste hierarchy:

- Re-use of demolition and excavation waste on site will be prioritised.
- Where demolition and excavation waste cannot be re-used on site, priority will then be given to re-using it off site, for example, reuse of excavated material for earthworks and environmental mitigation off-site.
- Where re-use of demolition and excavation waste is not possible on-site or off-site, this waste will be recycled or recovered. The development will work closely with their waste supply chain to ensure waste is diverted away from landfill wherever there is an alternative option.

5.4 Designing for Building Optimisation

5.4.1 Designing for Longevity

To extend the functional lifespan of the development, the following measures will be implemented into the design proposals:

- Selecting external facing materials that are durable and require low maintenance to ensure longevity, for example, facing brickwork, PPC Aluminium Windows, and sheet metal work in an Anodised finish.
- Consideration of material and product replacement intervals to further limit the lifecycle impact of the development.

5.4.2 Designing for Adaptability

To facilitate a potential change in use that generates minimal waste, the design proposals will consider the following measures:

- Flat slab construction with the reinforced concrete core to provide so that floor plates are flexible for future adaptations, without internal vertical braced bay locations or load bearing walls.
- Designing with additional loading allowance for movable internal partitions to offer future flexibility for change in use and/or layout.
- Kitchens and bathrooms are proposed to be built on site traditionally allowing for ease of adaptation in the future.

5.4.3 Designing for Disassembly

To minimise waste and encourage re-use at the end of the building's life, design proposals will consider the following measures for disassembly:

- Re-use and recycling of reinforced concrete frame, for example crushing to create recycled aggregate for future projects.
- Using construction materials that allow for future re-use, for example brickwork facades, aluminium windows and cladding, and internally light weight plasterboard partitions with metal studwork.
- Designing mechanical, electrical and plumbing equipment to facilitate re-use or moving without the need to change the building layout.

5.5 Locally and Responsibly Sourced Materials

To minimise the carbon footprint associated with sourcing materials, the following measures will be considered as part of the design proposals to ensure that materials are sourced locally and responsibly:

- Prioritise the local sourcing of concrete and brick slips where possible.
- Carry out due diligence on suppliers to prioritise those that are accredited by responsible sourcing schemes such as, for example, BES 6001, ISO 14001 EMS, FSC or PEFC timber products, CoC.
- Ensure concrete products are supplied with an Environmental Product Declaration.
- Embodied carbon calculations for the main structural frame.

6. CIRCULAR ECONOMY MONITORING FRAMEWORK

A scheme specific monitoring framework has been developed which outlines the commitments that this Circular Economy Statement has established. A number of key activities have been proposed which will be benchmarked against each objective. The person(s) responsible for delivering the evidence supporting the activities and the project's lifecycle stage in which these activities will be carried out has also been assigned in the table below.

Table 5 – Monitoring Framework

Objective	Activity	Lead / Responsibility	Timeline
Reduce demand for materials and minimise quantities used.	Issue a Pre-Qualification Questionnaire (PQQ) to check compliance of suppliers with the Developer's Circular Economy commitments. Bill of Materials to benchmark quantity of recycled content and re-used building materials. Using materials to standardised measurements to reduce the need for offcuts and ensuring the correct quantities are ordered to minimise offcuts to reduce waste.	Developer / Construction Contractor	Pre-Construction to Post-Completion
Source materials responsibly and sustainably.	Carry out due diligence on suppliers to prioritise ordering from those that are accredited by responsible sourcing schemes such as, for example, BES 6001, ISO 14001 EMS, FSC or PEFC timber products, CoC. Request for Environmental Product Declarations (EPD) for recycled products, and products with low embodied carbon.	Developer / Construction Contractor	Pre-construction to Construction Phase
Reduce the amount of construction waste.	Construction Environmental Management Plan, with a Construction Waste Management Strategy to maximise diversion of construction waste from landfills.	Construction Contractor	Construction Phase
Reduce the amount of operational waste.	Operational Waste Management Plan. Recycling facilities.	Operator	During occupancy

7. CONCLUSION

The design proposed for the development at Chapeltown Street has been assessed against the UK Green Building Council (UKGBC) key principles of the Circular Economy, as well as national, regional, and local planning policy frameworks. These principles are based around the following criteria:

- Designing out waste,
- Maximising resource and material efficiency,
- Demolition and excavation waste management,
- Design for longevity,
- Design for adaptability,
- Design for disassembly,
- Use of locally and responsibly sourced materials

In order to accurately identify the key circular economy principles that will be implemented as part of the proposed design, a workshop was held with key members of the design team to discuss all of the potential circularity measures. The items highlighted throughout Section 5 of this report were provided and committed to by the design team, and from this the following conclusions can be made:

The development will meet the above criteria through the following measures:

- Waste will be designed out during pre-construction with the implementation of a SWMP, as well as during construction and operation through segregation measures and ensuring adequate waste facilities are provided.

- Resource efficiency will be maximised by ensuring the correct quantities are ordered, using materials of standing sizing to reduce off cuts and designing with standardised sizes in mind.

- On site re-use of demolition and excavation waste will be prioritised (for example, topsoil re-use for gardens and landscaping), followed by re-use off site (for example, reuse of excavated material for earthworks), followed by working closely with waste supply chain to recycle and recover waste in line with the waste hierarchy.

- The building will be optimally designed to extend the functional lifespan of the development by selecting external facing materials that are durable and require low maintenance.

- Designs will also facilitate a potential change in use by providing allocation of space for various uses and designing with additional loading allowance for internal partitions to offer future flexibility.

- Proposals will implement design for disassembly by using construction materials that allow for future re-use, for example brickwork facades.

- Priority will be given to suppliers that are accredited by responsible sourcing schemes such as, BES 6001, ISO 14001 EMS, FSC or PEFC timber products, CoC.

- Local sourcing of key materials, such as brick slips and concrete, will be done where feasible.

In conclusion, , the proposed development has embedded Circular Economy principles within the design proposals, and accords with national best practice, and supports the vision for Manchester City to become a zero-waste city in the near future.