

MAYOR OF LONDON

**CIRCULAR
ECONOMY
STATEMENT**

GUIDANCE

PRE-CONSULTATION DRAFT

GOOD GROWTH BY DESIGN

**A
BUILT
ENVIRONMENT**

**FOR
ALL
LONDONERS**

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OVERVIEW OF THIS GUIDANCE

This guidance document explains how to prepare a **Circular Economy Statement** as required by draft London Plan Policy SI7.

The guidance has been developed with industry, for industry, and has involved extensive collaboration and testing with developers, architects, engineers, contractors, suppliers and other specialist consultants. Developers are already putting the guidance into practice.

Section 1

Provides an introduction to Circular Economy Statements, including the policy context for submission, when they must be submitted, and how they are assessed.

Section 2

Provides an introduction to Circular Economy concepts, outlining the core principles that underpin the structure and content requirements of Circular Economy Statements.

Section 3

Describes the structure and content requirements for Circular Economy Statements at pre-planning/outline planning (RIBA stages 1/2), full planning (RIBA stage 3) and for planning updates and post-completion (RIBA stages 4-7). In broad terms, they should contain:

- Context and detail about the buildings, public realm and supporting infrastructure
- An explanation of the 'strategic approach(es)' underpinning the statement

- Commitments that will be delivered for each of the following core principles:
 1. Conserve resources, increase efficiency and source materials sustainably
 2. Design to eliminate waste (and for ease of maintenance)
 3. Manage waste sustainably and at the highest value
- Supplementary discussions of specific measures to be implemented, anticipated challenges and counter-actions
- Plans to report against targets and lessons learnt
- End-of-life strategy for ensuring that the development can be disassembled and the materials reclaimed with minimal waste, as much as possible.

Section 4

Lists additional resources on how to incorporate key Circular Economy principles into design proposals.

Appendices A to E

Provide supporting information including definitions of key terms and templates for use within the Circular Economy Statements.

1 INTRODUCTION

1.1. Purpose of this document

1.1.1. This guidance document explains how to prepare a Circular Economy Statement to accompany strategic planning applications referred to the Mayor as set out in draft London Plan Policy SI7, or where boroughs have specified a lower threshold. It is for anyone involved in, or with an interest in developing Circular Economy Statements, including developers, designers, consultants and local government officials.

1.2. Key aims of Circular Economy Statements

1.2.1. Circular Economy Statements are intended to demonstrate how a development, including any public realm and supporting infrastructure, will incorporate circular economy measures into all aspects of the design, construction and operation process. This will help to ensure that applicants seeking planning permission for major schemes:

- Consider strategies to facilitate the transition towards a circular built environment;
- Report against numerical targets that will facilitate monitoring of waste and recycling; and
- Recognise opportunities to benefit from greater efficiencies that can help to save resources, materials, and money.

1.3. Policy context: Requirement to produce a Circular Economy Statement

1.3.1. The Mayor of London wants to see London's homes, buildings and supporting infrastructure adopt innovative design. The draft London Plan has taken the first steps to drive a circular built environment by introducing new policy requirements. Draft London Plan Policy D3 'Optimising site capacity through the design-led approach', and SI7 'Reducing waste and supporting the Circular Economy' set out policy objectives to:

- Create buildings that are high quality, with architecture that pays attention to detail and gives thorough consideration to the practicality of use, flexibility, safety and building lifespan, through appropriate construction methods and the use of attractive, robust materials which weather and mature well;
- Aim for high sustainability standards and take into account the principles of the circular economy;
- Improve resource efficiency to keep products and materials at their highest value in use for as long as possible;
- Promote waste avoidance and minimisation and ensure that there is zero biodegradable or recyclable waste to landfill by 2026^{1,2,3}; and
- Meet or exceed the municipal waste recycling target of 65 per cent by 2030, the reuse/recycling or recovery of 95 percent of construction and demolition waste, and the beneficial use of at least 95 per cent of excavation waste.

1.3.2. Policy SI7 requires development applications that are referable to the Mayor of London to submit a Circular Economy Statement as part of a planning application. It states:

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

- **How all materials arising from demolition and remediation works will be re-used and/or recycled;**
- **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;**

1 Policy D3 'Optimising site capacity through the design-led approach'

2 Policy SI7 'Reducing waste and supporting the Circular Economy'

3 Policy SI8 'Waste capacity and net waste self-sufficiency'

- **Opportunities for managing as much waste as possible on site;**
- **Adequate and easily accessible storage space and collection systems to support recycling and re-use;**
- **How much waste the proposal is expected to generate, and how and where the waste will be managed in accordance with the waste hierarchy;**
- **How performance will be monitored and reported.**

1.4. Applicability of Circular Economy Statements

1.4.1. A scheme is referable to the Mayor if it meets the criteria set out in the Mayor of London Order⁴ which includes any development:

- Comprising 150 residential units or more
- Over 100,000m² (in the city), 20,000m² (central) or 15,000m² (outer)
- Over 25 meters in height within the Thames Policy Area, over 150m height elsewhere in the City of London or 30 meters in height elsewhere in London
- Of existing buildings which will increase their height by more than 15m
- On Green Belt or Metropolitan Open Land

1.4.2. In draft London Plan Policy SI7 part C, London boroughs are encouraged to apply circular economy principles and set their own lower local thresholds for Circular Economy statements. This could potentially include, for example:

- A residential development of 10 or more homes

⁴ The Town and Country Planning (Mayor of London) Order 2008 <https://www.london.gov.uk/what-we-do/planning/planning-applications-and-decisions/what-powers-does-mayor-have-planning>

- A residential development on a site of at least 0.5 hectares
- Creation or change of use of a commercial development (1,000m² or more)
- A non-residential development on a site of at least 1 hectare

1.4.3. Developments not required to produce a Circular Economy Statement are still encouraged to apply this Circular Economy Statement Guidance.

1.5. Submission of Circular Economy Statements

1.5.1. Circular Economy Statements should inform important, early decisions and should be submitted at outline/pre-application (RIBA Stage 1/2), full application (RIBA Stage 2/3) and post-completion stages. These are referred to within this guidance using the following nomenclature:

- **Draft Circular Economy Statement:** developing a strategic approach to the Circular Economy is the focus of the Draft Circular Economy Statement.
- **Detailed Circular Economy Statement:** the emphasis then shifts to how the Circular Economy will be addressed through detailed design.
- **Circular Economy Statement: Post-Planning Updates:** progress in meeting the targets and commitment can be provided during the construction process and be included in Post-Planning Updates. The need for updates will be determined during the application process, but typically, these should be provided at RIBA Stages 5 and 7.

1.5.2. For masterplan-led developments where limited design information is available, the Circular Economy Statement should focus on the work carried out to assess opportunities for re-use of any materials, buildings or resources on site. It should also describe any strategic ways that the masterplan will promote Circular Economy measures.

1.5.3. Section 3 sets out further guidance on what to include at each stage of the application process.

1.6. Integration of Circular Economy Statements with other planning submission documents

1.6.1. All planning applications referred to the Mayor must include a Circular Economy Statement prepared in accordance with this guidance document. Where other documents are being submitted as part of a planning application, it may be appropriate to cross-reference these documents provided cross-referencing is clear and the documents contain sufficient information to allow a full assessment of the application.

1.6.2. In particular, there is likely to be some overlap between the strategies identified in the Circular Economy Statement, and the actions prescribed within the Site Waste Management Plans and Operational Waste Management Plans or similar. These should be cross-referenced in Circular Economy Statements as relevant.

1.6.3. Examples of other documents which may impact the Circular Economy Statement include:

- Design and Access Statements
- Energy Statements (including Whole Life-Cycle Carbon Assessment)
- Environmental Impact Assessments
- Sustainability Statements and/or Sustainability Checklists
- Sustainability Assessment Method Reports (BREEAM, SKA, HQM, WELL, Fitwel)
- Site Waste / Resource Management Plan

1.7. How are Circular Economy Statements assessed?

1.7.1. Circular Economy Statements must adhere to minimum content requirements in order to be considered 'compliant' with this guidance for meeting London Plan Policy (see Section 3 for further details). Applicants are encouraged to go beyond compliance by adopting more ambitious strategies or targets ('pioneering statements').

1.7.2. Engagement with stakeholders in developing this guidance showed that achieving the 'compliant' standard should be achievable for referable developments without requiring significant additional work. The metrics and reporting forms presented in Section 3.3 link to, and draw from, information that is likely to be available in other planning submission documents or related work such as Site Waste Management Plans, BREEAM assessments, and so on.

1.7.3. At pre-application/outline and detailed planning application stage, the Circular Economy Statements will be checked for:

- **Completeness:** Does the statement contain the core information described in Section 3? Has the applicant demonstrated that circular economy principles have informed the proposals?
- **Technical validity:** Are the commitments relevant to the project? Has the applicant demonstrated that there is a reasonable process in place that will help them achieve and monitor their stated targets?
- **Level of ambition:** Does the Statement include clear commitments to Circular Economy measures that go above and beyond standard practice?

1.7.4. Projects seeking to go beyond the 'compliant' standard to demonstrate a 'pioneering' level of commitment to the Circular Economy can do so by:

- Showing **depth:** Exceeding the minimum policy requirements, or otherwise going above and beyond standard practice; and/or

- Showing **breadth**: Setting additional targets (for example, see 'OPTIONAL' metrics in Section 3.3), demonstrating that a broad range of measures have been investigated.

1.7.5. The GLA recognises that, in some cases, an achievement may not be adequately captured by numerical metrics. Examples could include retaining and refurbishing a building that might otherwise be demolished, working with a supplier to develop a leasing scheme for building components, or using an innovative product such as a compostable plasterboard alternative.

1.7.6. In such cases the applicant should highlight the achievement within the 'Narrative' portion of the Circular Economy Statement (see Section 3), explaining:

- How it reflects the London Plan Circular Economy policy ambitions; and
- Any other benefits for occupants, neighbourhoods, local authorities, etc. These may be qualitative or quantitative but will need to be backed up by evidence at application stage (e.g. reports, calculations, specification documents) and post-completion (e.g. surveys or monitoring results) as relevant.

1.7.7. Draft London Plan Policy SI7 B(6) states that referable applications need to demonstrate how performance of the Circular Economy Statement will be monitored and reported. This must include:

- What actually happened;
- How this is different from what was planned; and
- Why it differed and what the key learning were.

This will help to promote good practice. This should be appropriately secured at planning stage. Section 3 'Reporting Outcomes' sets out how this should be done post-completion.



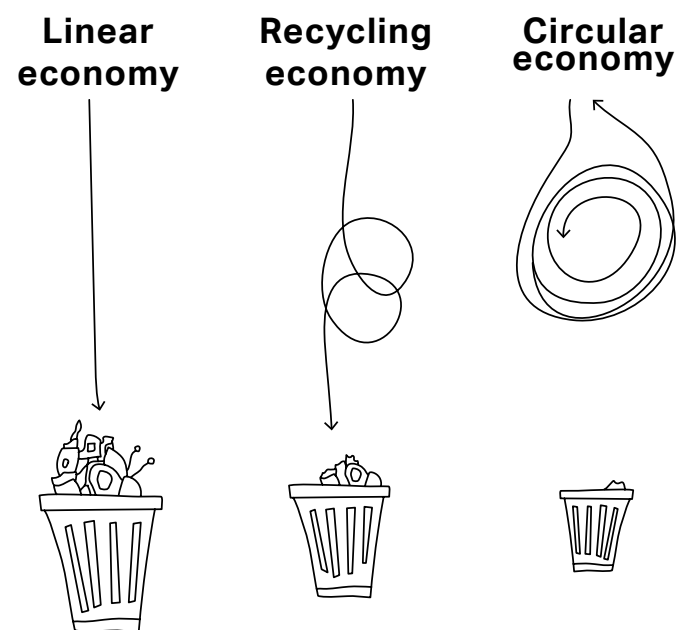
Cambridge Heath Road, Waugh Thistleton
(Photography: Tim Crocker)

2 CIRCULAR ECONOMY CONCEPTS

2.1. Context: What is the Circular Economy?

2.1.1. A Circular Economy is defined in draft London Plan Policy SI7 'Reducing waste and supporting the Circular Economy' as one where materials are retained in use at their highest value for as long as possible and are then reused or recycled, leaving a minimum of residual waste.⁵

2.1.2. The end goal is to retain the value of materials and resources indefinitely, with no residual waste at all. This is possible, requiring transformational change in the way that buildings are designed, built, operated and deconstructed.



FROM TAKE • MAKE • USE • DISCARD TO RE-MAKE • USE-AGAIN

Diagram courtesy of Circular Flanders

2.1.3. A Circular Economy stands in contrast to our current linear system, where materials are mined, manufactured, used and thrown

away. The 'Take, Make, Dispose' model, or 'linear' economy, has fuelled rapid growth but is inherently unsustainable in the long term where resources are finite.

2.1.4. Widespread adoption of Circular Economy principles would dramatically reduce the quantity of new material imported into the city, and the amount of waste needing to be managed including that exported. Alongside this reduction in imported material and exported waste, smart technologies, infrastructure and logistics can contribute significantly to reduced vehicle movements, air pollution, noise and greenhouse gas emissions. Developers can also benefit from cost savings, e.g, by purchasing fewer materials and managing less waste.

2.2. Core principles

2.2.1. Applying Circular Economy thinking to the built environment is highly complex, with many overlapping issues and trade-offs to consider. However, there are some core guiding principles that promote a regenerative and restorative whole systems approach and should be applied from the top down⁶.

Principle	Develop commitments to..
1. Conserve resources, increase efficiency and source sustainably	1.1 Minimise the quantities of materials used 1.2 Minimise the quantities of other resources used 1.3 Specify and source materials and other resources responsibly and sustainably
2. Design to eliminate waste (and for ease of maintenance)	2.1 Design for longevity, adaptability or flexibility and reusability or recoverability 2.2 Design out construction, demolition, excavation and municipal waste arising

⁵ Policy SI7 'Reducing waste and supporting the Circular Economy' https://www.london.gov.uk/sites/default/files/intend_to_publish_-_clean.pdf

⁶ The principles are consistent with implementing the EU waste hierarchy and with the circular economy systems thinking approach developed by the Ellen MacArthur Foundation (EMF).

3. Manage waste sustainably and at the highest value	3.1 Manage demolition waste
	3.2 Manage excavation waste
	3.3 Manage construction waste
	3.4 Manage municipal waste (and industrial waste, if applicable)

2.2.2. These principles underpin the structure and content requirements of Circular Economy Statements, including the reporting forms and metrics. This is intended to ensure that applicants address all of the London Plan policy objectives described in Section 1.3, think long term and adopt a whole life perspective to the use of resources.

2.2.3. The following pages contain brief descriptions and examples of how these principles can be implemented through commitments. Applicants are encouraged to refer to other resources such as those listed in Section 4 for further information and inspiration.

Principle 1 Conserve resources and source ethically

2.2.4. Reducing the quantities of materials 'locked away' in the built environment is critical. The design of buildings, public realm and supporting infrastructure is important because it can influence the types and quantities of materials and other resources that will be used for many decades.

Commitment 1.1 Minimising the quantities of materials used

2.2.5. Designs should consider opportunities to reduce the demand for building materials; for instance, by prioritising refurbishment over demolition. Fundamentally, this requires teams to question the design brief and consider whether it can be met by building less and building more efficiently.

Commitment 1.2 Minimising the quantities of other resources used (fossil fuels, water, land)

2.2.6. Whilst materials are the primary focus of Circular Economy Statements, Circular Economy principles also apply to energy, water, land and ecosystems. For example, building on brown field sites rather than virgin land minimises disruption to the existing landscape, helping to optimise the use of London's limited resources.

Commitment 1.3 Specifying and sourcing materials and other resources responsibly and sustainably

2.2.7. This principle covers measures such as specifying the use of reused or recycled materials, installing greywater recycling systems, or participating in reuse schemes. For further information about sustainable sourcing, see Section 5 – Definitions.

Principle 2 Design to eliminate waste (and for ease of maintenance)

2.2.8. Minimising waste is about tackling waste reduction 'at source' and avoiding materials being classified as waste through careful design and specification. This should be considered in the context of the whole life-cycle of the development, from strategic planning through to end of life.

Commitment 2.1 Designing for longevity, adaptability or flexibility and reusability or recoverability

2.2.9. The design process should include a realistic assessment of the ability of the development to accommodate change, how frequently it will be reconfigured or remodelled, and how to avoid a premature end of life for all components. (This topic is discussed in more detail in Section 2.4.)

2.2.10. Careful decision-making in this regard can add value over the life of the development. For instance, commercial buildings may provide generous floor-to-ceiling heights and open grids to ensure that the interior can accommodate a range of tenants. This flexibility could be enhanced by, for instance, using a relocatable, modular internal partition system that would allow for total reconfiguration without the need to purchase additional materials.

Commitment 2.2 Design out construction, demolition, excavation and municipal waste arising

2.2.11. This principle covers designing out waste by considering opportunities for materials optimisation, reclamation, and reuse. Minimisation of packaging, off cuts, damage and rework should be given special attention through off-site, precision manufacture, just-in-time delivery and secure on-site storage.

2.2.12. When excavating and designing the public realm, topsoil must be given special attention due to its high value and concerns that it is being damaged and wasted at a highly unsustainable rate. Topsoil should never be disposed of to landfill except potentially as a planting medium as part of a site reclamation scheme. Consideration should be given to balancing cut and fill (avoiding any import or export of material) and to techniques that clean and enable reuse of excavation material on site.

Principle 3 Manage waste sustainably and at the highest value

2.2.13. After considering opportunities to minimise the use of resources and design to eliminate waste, developers must demonstrate how they propose to manage any waste that does arise. This includes any waste arising during demolition, excavation, and construction (i.e. resulting from the process of developing the physical built environment), along with municipal waste (i.e. resulting from the activities of occupants) and industrial waste, if any.

2.2.14. Any waste arising must be managed as high up the Waste Hierarchy as is practicable.

2.2.15. Management of waste includes the transportation of waste and consolidating trips, reducing distances and shifting freight movements to cleaner modes.⁷

⁷ Refer to the Mayor's Transport Strategy provides further detail.

Commitment 3.1 Managing demolition waste

2.2.16. In order to manage demolition waste, applicants must consider an independent pre-demolition audit, implementing careful demolition strategies, segregating materials and conducting analysis / monitoring of waste flows to maximise reuse and reclamation.

Commitment 3.2 Managing excavation waste

2.2.17. Due to the characteristics of this waste stream, not all of it can easily be reused or recycled, whether on site, locally or otherwise. Nonetheless, excavation material should be put to the best environmental use that is practicable.

2.2.18. For example, using excavation waste as a resource within the construction of the proposed development in accordance with the Definition of waste Code of Practice (DoWCoP), seeking opportunities for such material to be used in other local construction projects, or other beneficial uses (e.g. quarry restoration) should be prioritised above sending waste to landfill.

Commitment 3.3 Managing construction waste

2.2.19. Applicants should aim to incorporate measures for managing construction waste that go above and beyond standard practice where possible.

2.2.20. It is also important to recognise that construction waste arises after the initial construction phase of a development – during the operational phase, due to maintenance, refurbishment, and at the end of life. It may be possible to develop plans for managing this waste, based on repair and replacement forecasts or functional adaptability studies.

Commitment 3.4 Managing municipal waste (and industrial waste, if applicable)

2.2.21. This topic should be reflected in the operational waste management plan. Easily accessible space for segregating and storing waste for collection and reuse / recycling / composting must be provided in line with the London Plan and other local authority guidance.

2.2.22. Both domestic and non-domestic developments should explore measures such as consolidated, smart logistics and community-led waste minimisation schemes.

2.3. 'Building in layers'

2.3.1. A useful way to understand a building or development is in terms of 'layers', where each layer has its own life-cycle that may require a different approach (or different solutions) to be adopted.⁸ This concept is illustrated in Figure 1 below.

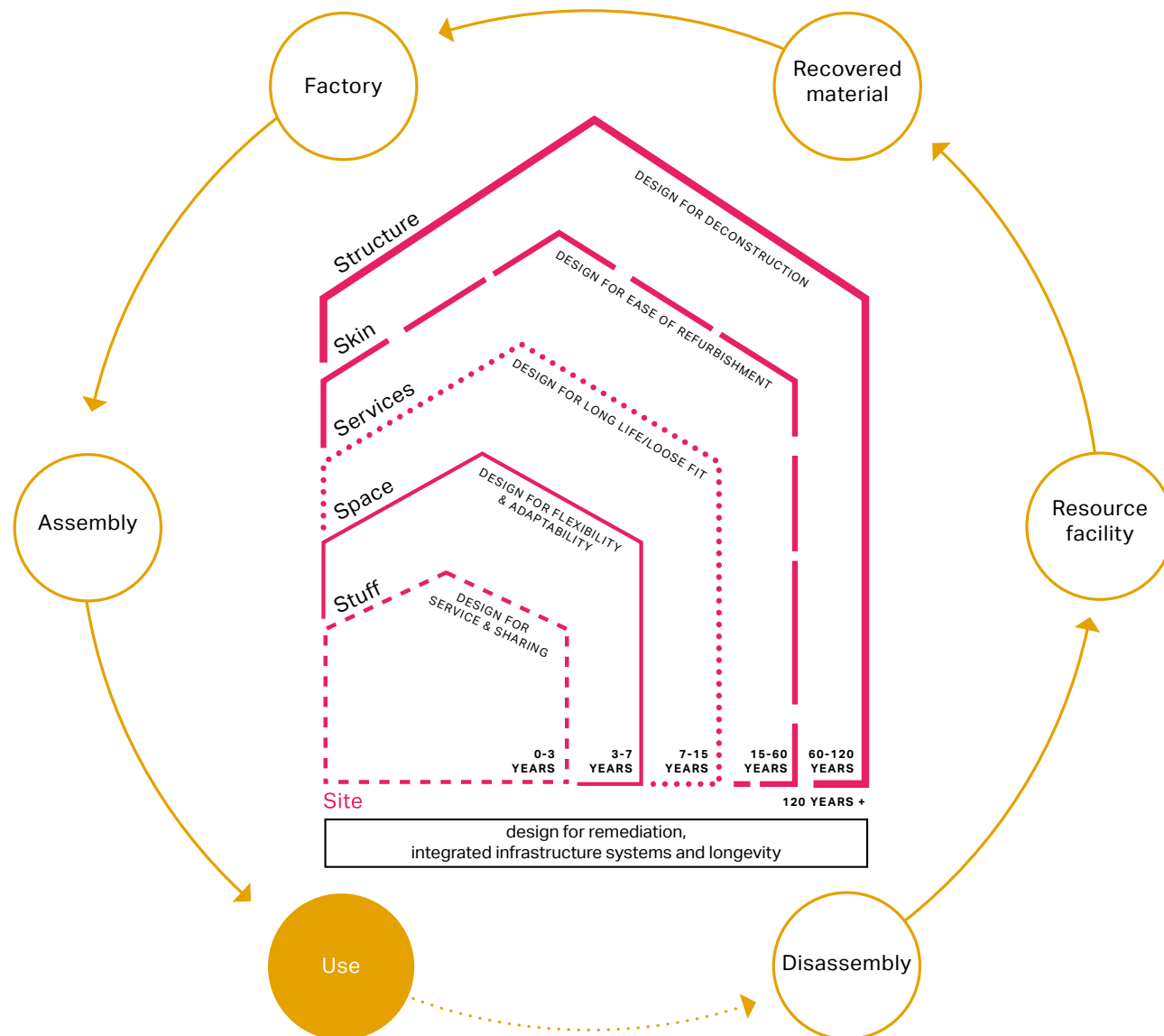


Figure 1 - 'Building in layers diagram', diagram courtesy of Useful Projects

⁸ See Frank Duffy's 'Shearing Layers' concept described in 'How Buildings Learn' by S. Brand (1994)

2.3.2. For example, the structure of a building will typically be designed to last for 100 years or more whilst features like the façade may be replaced two or three times over the life of a building. Bathrooms, kitchens, flooring, furniture and furnishings will typically be replaced much more often.

2.3.3. Taking a design approach that recognises these distinctions, the structure and façade of a development may be built to be long lasting and adaptable, whilst individual components like the services, interior space and furnishings are designed in a way that supports reuse or recycling.

2.3.4. The layers that are commonly referred to across industry are defined below, with reference to the RICS New Rules of Measurement (2012) where relevant. These form the basis of several of the Circular Economy Statement reporting forms, which prompt applicants to develop Circular Economy strategies for each building 'layer' over the lifecycle of a development.

Layer	Summary and constituent elements	RICS reference
Site	The geographical setting, urban location and external works	NRM 8
Substructure	Excavations, foundations, basements and ground floors	NRM 1
Superstructure	Load-bearing elements above plinth including roof supporting structure	NRM 2.1, 2.2 and 2.4 - frame, upper floors, stairs
Shell/Skin	The layer keeping out water, wind, heat, cold, direct sunlight and noise	NRM 2.3, 2.5, 2.6 - roofs, external walls, windows and external doors
Services	Installations to ensure comfort, practicality, accessibility and safety	NRM 5
Space	The layout internal walls, ceilings, floors, finishes, doors, fitted furniture	NRM 2.7, 2.8 and NRM 3

Stuff	Anything that could fall if the building was turned upside down	N/a
Construction Stuff	Any temporary installations/works/materials, packaging and equipment	NRM 0

2.4. Defining a strategic approach

2.4.1. In order to implement Circular Economy principles most effectively, it is helpful to explore high level strategic opportunities as early in the development process as possible.

2.4.2. Choosing the most appropriate Circular Economy strategy will depend on context, the nature of the development, owner and occupier needs. The strategy should be determined during concept design and should form part of the development brief. Feasibility studies, surveys, audits and other investigations may be required to understand what options are appropriate. The approach may evolve as the design evolves, or in response to wider considerations. Applicants should therefore be prepared to review and change approaches as appropriate.

2.4.3. In many cases, a different approach should be adopted for different parts or areas of the development, such as

- Existing buildings / components versus new buildings / components
- Long lifespan buildings / components versus short lifespan buildings / components

2.4.4. Some of the different strategic approaches that can be adopted are listed below. These are not mutually exclusive but can provide an overarching framework for teams to define the strategic approach to a given project (or part of project).

Approach	Description
Existing developments or components	
Refurbishment	Redeveloped for similar needs and uses but meeting or exceeding current regulations and standards through restoring, refinishing and future proofing while minimising changes and avoiding replacement of any parts. Parts of historical significance are incorporated in the design and carefully preserved. Designed for longevity, adaptability or flexibility to prolong the new life of the development.
Repurpose	Redeveloped to accommodate different needs and/or uses (e.g. from industrial use to mixed use) but exceeding current regulations and standards through with significant changes and replacement of shorter-life parts. Parts of historical significance are incorporated in the design and carefully preserved. Designed for longevity, adaptability or flexibility to prolong the new life of the development.
Deconstruct and reuse	Building/infrastructure disassembled, with the entire asset being reconstructed elsewhere, or individual components directly reused elsewhere.
Demolish and recycle	Traditional demolition, with elements and materials converted into new elements and materials and objects for use on the site or on another site nearby.

Long life new developments or components
(expected life over 25 years)

Longevity	Tailored to well-defined, long term needs while being durable and resilient or able to cope with change with little modification/no replacement of parts due to its 'loose fit', generous proportions and readiness for alternative technologies, different ways of living or working and a changing climate.
Adaptability	Designed to meet the needs of the present, but with consideration of how those needs might change in the future and designed for change in the form of periodic remodelling including alterations or replacement of non-structural parts – modifications are likely to involve planning, building control and 'wet trades'.
Flexibility	Designed to balance the needs of the present with how those needs will change in the future and designed for change through frequent reconfiguring including reconfiguration of non-structural parts – configurations are likely to be pre-agreed with planning and building control and not involve 'wet trades' or any waste.

Short life new developments or components
(expected life up to 25 years)

Reusability	Designed to be redeployed as modules or reused as a kit of parts on one or more different sites while minimising any servicing and maximising the size of the future market by using high-demand, standard dimensions and specifications.
Recoverability	Designed to be deconstructed and reused or recycled on a part by part basis due to neither modules nor a kit of parts being desirable, feasible or viable and/or a limited future market as a result of unusual parts, dimensions or specifications

2.5. Starting out

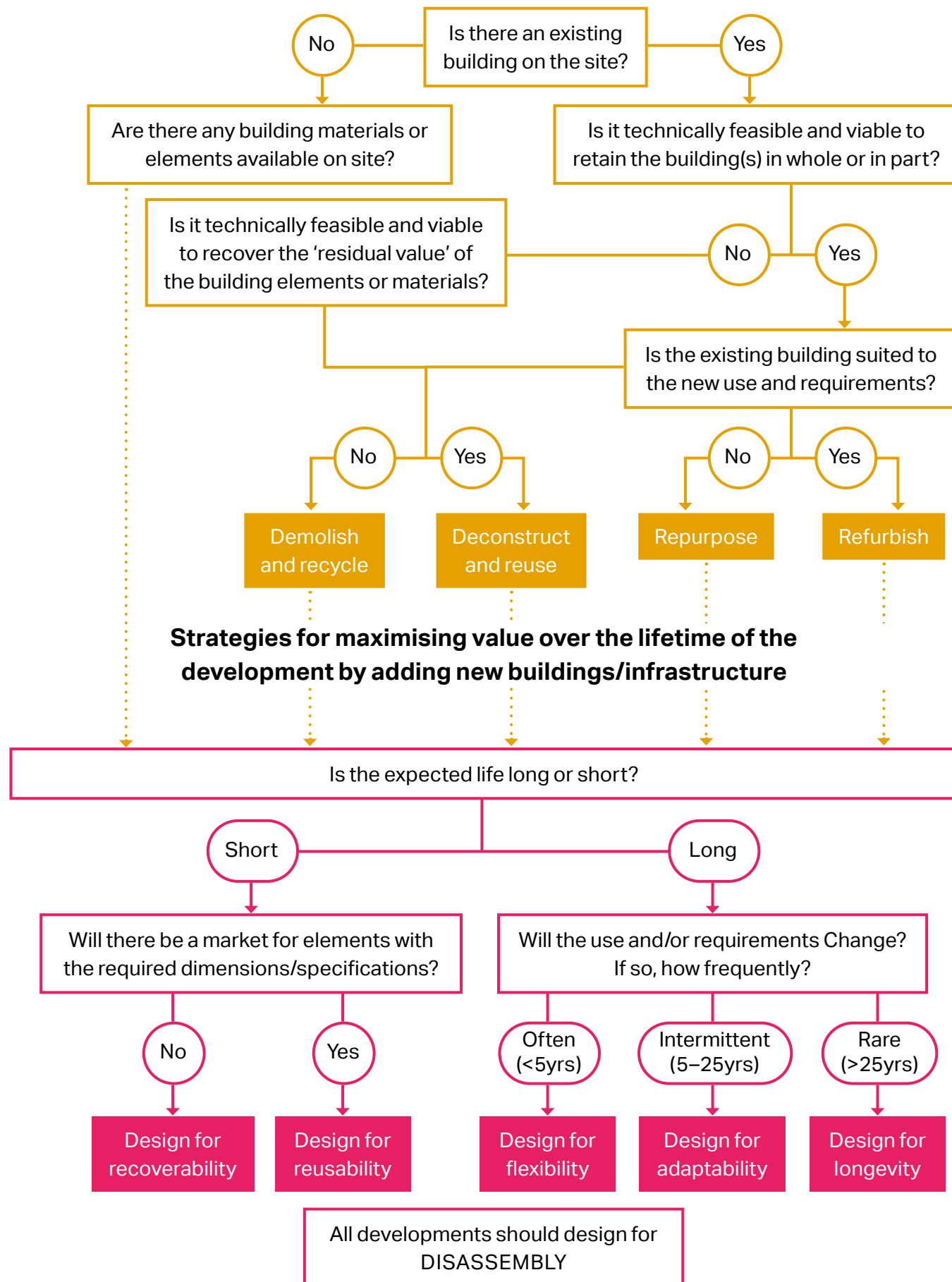
2.5.1. To identify the appropriate strategic approach, applicant teams are encouraged to use the 'Decision Tree' on the following page. It prompts designers and developers to consider opportunities for maximising the residual value of any buildings, materials or elements on site, before considering strategies for adding value over the lifetime of the development.

2.5.2. As explained in more detail in Section 3, applicants must describe and justify their strategic approach in the Circular Economy Statement using the template (Table 1) provided in Appendix A.

2.5.3. The next section of this guidance document lays out how the concepts in the decision tree can be incorporated into the design process and evidenced within a Circular Economy Statement.



2.6. Strategies for maximising residual value



3 STRUCTURE AND CONTENT OF CIRCULAR ECONOMY STATEMENTS

3.1. Overview of requirements at different stages

3.1.1. The production of a Circular Economy Statement involves three steps that take place at different stages of the development process:

Step 1

Pre-application/Outline application stage → submit a Draft Circular Economy Statement

Step 2

Full application stage → submit a Detailed Circular Economy Statement

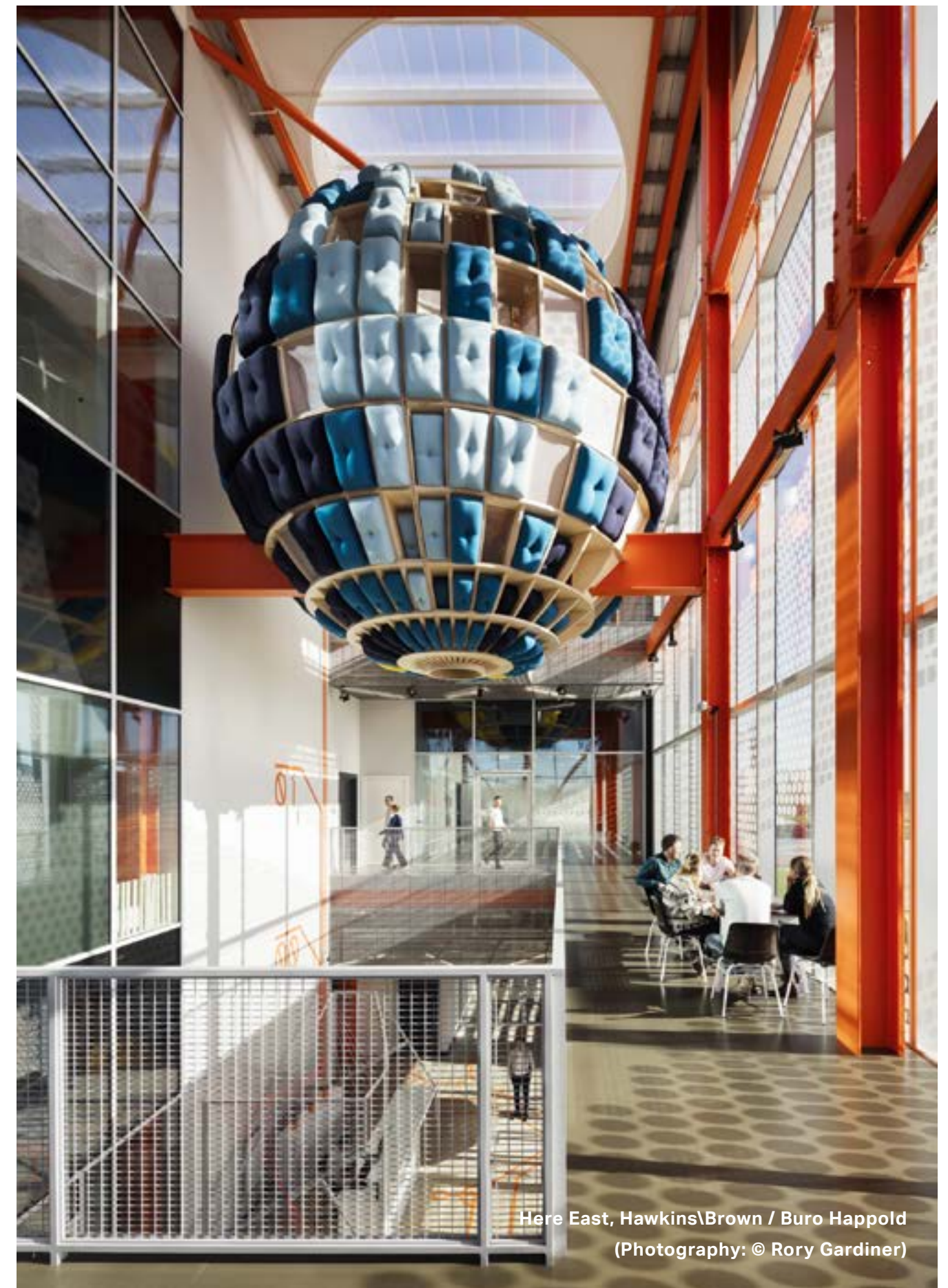
Step 3

Post-Completion Updates (specific to each project)

3.1.2. As shown in the table below, the Circular Economy Statement should include input from the developer and their consultants including the design team and contractor(s), suppliers, facility managers, waste managers and end users (where possible). Compiling the requisite information will require at least one meeting or workshop during the outline planning application stages, and another during the full planning application stage.

	STEP 1	STEP 2	STEP 3
Planning stage:	Pre-App/Outline	Full Application	Update/Completion
Output(s):	Draft Circular Economy Statement	Detailed Circular Economy Statement	Planning updates Post completion updates
RIBA Stages:	1-2	2-3	4-7

Objectives:	<ul style="list-style-type: none"> ● Identify strategic approach(es) to existing or new development and any materials on site ● Agree the metrics and targets to report against at detailed design stage ● Identify supporting information or calculations that will be required as evidence 	<ul style="list-style-type: none"> ● Confirm strategic approach(es) ● Confirm the metrics and targets to report against outlining specific commitments and opportunities and plans to achieve these ● Identify challenges and counter-actions 	<ul style="list-style-type: none"> ● Produce updates ● Confirm compliance ● Report outcomes ● Report lessons learnt
Actors to involve:	<p>Critical</p> <ul style="list-style-type: none"> ● Planner ● Developer ● Design Team <p>Desirable</p> <ul style="list-style-type: none"> ● Construction Advisor or Contractor 	<p>Critical</p> <ul style="list-style-type: none"> ● Developer ● Design Team ● Contractor <p>Desirable</p> <ul style="list-style-type: none"> ● Subcontractors ● Suppliers ● Facility Manager 	<p>Critical</p> <ul style="list-style-type: none"> ● Developer ● Design Team ● Contractor ● Subcontractors ● Suppliers ● Facility Manager <p>Desirable</p> <ul style="list-style-type: none"> ● Occupants and tenants
Actions to undertake:	<ul style="list-style-type: none"> ● Initial workshop(s) with design team to agree strategic approach ● Integrate CE principles into the project brief 	<ul style="list-style-type: none"> ● Follow up workshop(s) with design team ● Calculations, research, data gathering, etc. ● Engagement with supply chain 	<ul style="list-style-type: none"> ● Confirm that targets are achieved ● Monitor outcomes ● Engage with occupants / tenants as necessary



3.2. Overview of requirements at different stages

3.2.1. The table below shows the key elements of a Circular Economy Statement. It can be used as a compliance checklist or indicative Table of Contents. Further details on each section are provided in subsequent pages.

Title Page	Draft Circular Economy Statement	Detailed Circular Economy Statement	Post Planning Updates
Table of Contents			
Executive Summary → Brief description of development → Summary of the approach, key commitments and targets			
Introduction → Description of development → Method statement (including key outcomes from workshops/ meetings) → Circular economy aspirations			
Circular Economy Goals and Strategic Approach → Strategic approach(es) – summarised in Table 1 → Additional text to explain the strategic approach(es), if needed → [Outline Statements only: Describe any metrics that the team will provide commitments for at detailed stage, e.g. recycled content.]			
Circular Economy Commitments → Key commitments – summarised in Table 2 → Reporting forms for numerical targets and commitments: → Bill of Materials → Recycling and Waste Reporting form → Circular Economy Narrative – structured around nine CE Principles → Plans for implementation: → Specific plans for short- and medium-term targets → Programme / method for longer-term targets → End-of-life strategy			

Reporting Outcomes → State whether each target or commitment was achieved and provide evidence and supporting documentation → Lessons learned			
Appendices <i>Note: These documents provide the evidence base for Tables 1 and 2, the Waste Metrics form and the Bill of Materials. If these are being submitted separately as part of the planning application, it is acceptable to provide a summary and cross-reference instead of reproducing each document in full.</i> → Written evidence that the destination landfill(s) have the capacity to receive waste → Independent pre-refurbishment / pre-demolition audit → Site Waste / Resource Management Plan → Municipal / Operational Waste Management Plan → Cut and fill calculations and/or Excavated Materials Options Assessment → Building weight calculation (load take-down) → Scenario modelling demonstrating adaptability → Other supporting material depending on project characteristics	Provide information where available (early drafts)	Provide final documents for planning submission	Provide updates as required

UNPACKING THE CONTENTS OF A CIRCULAR ECONOMY STATEMENT

Title Page

3.2.2. The title page of a Circular Economy Statement should contain:

- The name of the development and planning application reference
- If it is a Draft or Detailed Circular Economy Statement or a Post Completion update
- Authors of the Circular Economy Statement (organisation)

Executive Summary

3.2.3. The title page should be followed by a non-technical summary of the Circular Economy approach and commitments as they stand at the stage of production. At outline application the summary will be less extensive than at full application stage.

3.2.4. The executive summary should include:

- Identities of all organisations engaged in development, design and delivery
- A brief description of the development and any context
- A description of strategic approach(es) for each part of the proposed development e.g. existing buildings, new buildings, different areas or phases as appropriate (see Section 2.4.)
- A summary of the specific commitments being made, focusing (where possible) on commitments that go above and beyond standard practice. For example, crushing bricks for reuse in pile cappings is standard practice; cleaning and reusing whole bricks onsite retains the value of the material, avoids the need for new bricks and is therefore more in line with Circular Economy principles.

- A summary of the overall implementation approach ('Who, What, When, and How')

3.2.5. The aim should be to summarise this information on one to three pages, including any images, diagrams or tables.

Description of the development

3.2.6. The description of the development should be brief, relevant and include buildings, public realm and supporting infrastructure. It should include:

- A short description of any existing development and/or resources found on site
- The proposed floor area (GFA, GIA and NIA) for each use
- The number residential units (e.g. 450 flats and 70 houses)
- The approximate size/capacity of any new public realm or supporting infrastructure
- Any other important information or context needed to understand the approach taken, e.g. sites constraints, unique features, requirements of the brief, etc

3.2.7. The description of the development should outline the number of different areas, buildings or phases addressed by the statement and this should correspond with the number of versions of Table 2 found later in the Statement (see Section 3.3).

Method statement

3.2.8. A method statement should provide a summary of the process followed up to the point of submission and how the team approached the production of the Statement. This can include a summary of the meetings and workshops held, including key points, attendance, outputs and actions. For a Draft Circular Economy statement, the method statement will contain less detail but should provide a summary of steps taken thus far and note any important further steps that are planned (e.g. additional workshops at detail design stage).

3.2.9. The applicant should be able to demonstrate how this process has influenced the project brief, and any other aspects of the design, procurement and construction process. Supporting evidence of the approach taken and how this has evolved (e.g. meetings and outcomes) can be provided in the appendices.

Circular Economy Aspirations

3.2.10. In this section, applicants have the chance to explain how they interpret the Circular Economy, their view on how it improves the outcomes and their priorities to accelerate the transition, including any organisational Circular Economy strategy or targets that have been set.

3.2.11. Applicants should explain how the proposed development links with these wider Circular Economy aspirations, and any unique goals for this project.

3.2.12. Relevant experience and past developments should be mentioned, along with any notable Circular Economy outcomes achieved to date.

Strategic Approach(es) - Summarised in Table 1

3.2.13. At least one meeting/workshop should take place at an early stage for the developer and design team to consider the brief and discuss the overarching Circular Economy strategy for the project. Where possible, input from planners and/or contractors should also be sought.

3.2.14. Once the strategic approach has been agreed, the rationale should be summarised in Table 1. A snapshot of Table 1 is provided below. The template is provided in Appendix A.

3.2.15. Completing Table 1 requires those involved to:

- Agree the high-level strategy and approach(es)
- Explain the approach with reference to policy requirements and targets
- Identify supporting information that will be required in order to set specific targets and prove that they are achievable – e.g. audits, surveys, investigations, studies, analyses

3.2.16. Additional meetings/workshops may be necessary to develop the approach before finalising which measures will be adopted. Some detailed feasibility work may be required to translate opportunities into specific implementable measures.

3.2.17. Outline and full application statements must provide a completed Table 1 with additional rows for different phases, buildings or areas, if and where a different strategic approach is proposed.

3.2.18. Provide additional text as needed to explain the content in Table 1, if not covered in the introductory sections.

Outline statements only: Preliminary Targets and Commitments

3.2.19. Design teams, developers and any other relevant stakeholders (e.g. contractors, building operations managers) teams will need to reach a preliminary agreement regarding which targets and commitments they will report against at detailed application stage, and list these within the Draft Circular Economy Statement.

3.2.20. The Draft Circular Economy Statement should identify any surveys, audits, studies or analysis required to provide a strong evidence base for decisions to be taken during the next step of the process / RIBA Stages 2 to 5. This will help to ensure that the goals discussed at an early stage are integrated into the design process and documented appropriately.

3.2.21. This section of the Draft Circular Economy Statement will be replaced with specific commitments (see below) in the Detailed Circular Economy Statement.

Circular Economy Commitments

3.2.22. In preparation for a detailed planning application submission, the focus should shift from strategy to action and a deeper understanding of feasibility and technical challenge of the development capitalising on the opportunities related to the policy requirements and targets.

Key Commitments – Summarised in Table 2

3.2.23. Table 2 (see Section 3.3) is only required for Detailed Circular Economy Statements; however, it can be submitted in draft form at outline planning stage. It is intended as both a procedural tool to help guide workshops and discussions and as a practical tool to highlight key Circular Economy commitments within a full planning application.

3.2.24. A snapshot of Table 2 is provided below. The template is provided in Appendix B.

3.2.25. Additional copies of Table 2 should be completed for different phases, buildings or areas, if and where a different strategic approach is proposed and/or different targets apply. Table 2 prompts applicants to consider how they can apply the nine Circular Economy principles (see Section 2.2) to each building 'layer' (see Section 2.3). Opportunities should consider all life-cycle stages of each layer.

3.2.26. The contents of Table 2 should evolve, be refined and updated as the designs progress. Note that revision of Table 1 may prove necessary based on Table 2 and the developer should be engaged in these decisions.

3.2.27. The commitments listed in Table 2 as part of the Detailed Circular Economy Statement submission should only be those that hold the greatest opportunities, representing the strongest commitments that go above and beyond standard practice where possible.

Reporting Forms – Bill of Materials

3.2.28. Applicants must demonstrate that they have considered opportunities to conserve resources by applying lean design principles and source materials sustainably. This information is captured in the 'Bill of Materials' form (see Section 3.3 for further details).

3.2.29. In order to complete the Bill of Materials, applicants will need to estimate the quantity of materials used in each 'layer' of the building (kg), the material intensity (kg/m² GIA) and set targets for the minimum amount of recycled content to be used (% by value).

3.2.30. Applicants must provide the following evidence in appendices:

- Building weight calculation (load take-down) to be used in calculating material intensity
- Reused or recycled content calculations, including supporting details such as Environmental Product Declarations, specification documents, etc.

Reporting Forms – Recycling and Waste Metrics

3.2.31. The Recycling and Waste Metrics reporting form (see Section 3.3 for further details) is a template for reporting the total amount of waste / material generated during excavation, demolition, and management methods construction. At planning application stage, these figures will be estimates; after construction, applicants will be expected to provide an updated form with actual monitored figures.

3.2.32. In order to complete the Waste Metrics form, provide the following evidence in appendices:

- Cut and fill calculations
- Reused or recycled content calculations, including supporting details such as Environmental Product Declarations, specification documents, etc.
- Relevant extracts from the Site Waste / Resource Management Plan

- Relevant extracts from the Municipal / Operational Waste Management Plan

3.2.33. In addition, when it is intended to send waste to landfill applicants **must** provide written confirmation the receiving landfill has the capacity to deal with waste over the lifetime of the development.⁹ Where possible, confirmation should be provided for all waste handling facilities, in or outside London.¹⁰ This should be supported by the calculations / estimates of waste arising. Figures must align with the Waste Metrics form.

Optional Reporting Forms – Pioneering statements only

3.2.34. Applicants wishing to demonstrate 'pioneering' Circular Economy status may wish to provide an Enhanced Bill of Materials (see Appendix F for further details). An Enhanced Bill of Materials would use the same template as the normal Bill of Materials, but design teams would add rows or columns to set additional targets for specific parts of the building(s).

3.2.35. For example, an Enhanced Bill of Materials would be suitable for a project where the developer was committed to sourcing all interior furniture and fittings from the secondary materials market.

3.2.36. Alternatively, the applicant may wish to provide a 'Future' Bill of Materials (see Appendix E for further details). This would involve estimating the amount of construction and demolition waste generated over the lifetime of the building (e.g. due to repairs, refurbishment or decommissioning) and demonstrate how this waste has been minimised. Similarly, applicants could provide additional information within the Waste Metrics form.

3.2.37. A Future Bill of Materials or Recycling and Waste Metrics form would be suitable for a building that is designed to be 100% disassembled and reused at end of life.

⁹ GLA draft London Plan (2019) paragraph 9.7.5

¹⁰ The UK Department for Environment, Food & Rural Affairs Waste Duty of Care Code of Practice (2018) states: 'You have a responsibility to take all reasonable steps to ensure that when you transfer waste to another waste holder that the waste is managed correctly throughout its complete journey to disposal or recovery.'

3.2.38. Applicants should provide calculations, studies, or other evidence in the appendices as necessary to support any such commitments or targets.

Circular Economy Narrative

3.2.39. This section of the Statement will provide a more detailed description of how the targets presented in Tables 1 and 2, the Waste Metrics reporting form and the Bill of Materials will be achieved. For some projects, particularly those where key commitments are not adequately captured in terms of numerical metrics, this section provides an opportunity to elaborate on the proposals and their benefits.

3.2.40. This part of the Circular Economy Statement should include clear, strong commitments and targets. It should be structured to provide a response to each of the principles listed below (introduced in Section 2), with the aim of limiting subsections to one page where possible.



Principle	Develop commitments to..
1. Conserve resources, increase efficiency and source sustainably	1.1 Minimise the quantities of materials used 1.2. Minimise the quantities of other resources used 1.3. Specify and source materials and other resources responsibly and sustainably
2. Design to eliminate waste (and for ease of maintenance)	2.1. Design for longevity, adaptability or flexibility and reusability or recoverability 2.2. Design out construction, demolition, excavation and municipal waste arising
3. Manage waste sustainably and at the highest value	3.1. Manage demolition waste 3.2. Manage excavation waste 3.3. Manage construction waste 3.4. Manage municipal waste

3.2.41. Each subsection should contain the following:

- A short summary of the proposed approach
- Metric(s) and target(s) itemised
- Commitments and measures that will be adopted - these should be short, written in accessible language, along with key information about how each measure will be implemented
- Anticipated challenges and counter-actions

3.2.42. Summarise and cross-reference other planning documents, calculations, and reports as relevant. Other information should be supplied in the appendices.

Plans for implementation

3.2.43. Explain how short- and medium-term targets or commitments will be implemented, monitored, and reported. Consider the questions 'Who, What, When, and How?' The aim is to demonstrate that the applicant has identified specific, achievable targets and committed to their delivery.

3.2.44. Actual performance against these targets should be submitted at practical completion (see 'Reporting Outcomes' below.)

3.2.45. For longer-term targets, applicants should provide a description of the method(s) that will be used to ensure they are met, and a programme of key milestones (e.g. completion, monitoring intervals, and so on).

End-of-life strategy

3.2.46. Applicants should describe the strategy for how the proposal's design and construction will reduce material demands and enable building materials, components and products to be disassembled and reused at the end of their useful life. Building Information should be stored (e.g. Building Information Modelling or BIM) to facilitate end of life strategy, disassembly, future reuse, waste avoidance, waste reduction etc. Applicants should describe the content and format of the strategy and how this will be communicated to future building users. They should also outline key challenges that may prevent the strategy from being implemented, and how these have been addressed to the greatest extent that is feasible at this stage.

Reporting outcomes - Post Completion Report

3.2.47. This portion of the Circular Economy Statement sets out the targets, commitments and actual outcomes achieved. To some extent, the structure and content will therefore be specific to each development.

3.2.48. As a minimum, applicants must produce a Post Completion Report setting out the predicted and actual performance against all numerical targets, and provide updated versions of Tables 1 and 2, the Recycling and Waste Metrics form and Bill of Materials.

3.2.49. Applicants should clearly indicate where any changes have been made and why (i.e. if a target has been exceeded or has not been met).

3.2.50. They should also provide evidence and supporting documentation as appendices. These could include, for instance:

- Evidence of audits
- Written agreements or correspondence
- Drawings or photos
- Specifications
- Performance and test certificates

Lessons learned

3.2.51. In order to inform and improve the Circular Economy Statement process, structure and contents, applicants should describe the important lessons learned and summarise these in their Post Completion Report.

3.2.52. These should be captured at each stage of design and construction. Assigning an individual or individuals to capture lessons is crucial to ensure that these are fully understood and communicated to the wider team.

3.2.53. Lessons should be presented in a way that will help future development understand how best to achieve the London Plan Circular Economy objectives (see Section 1.1). This information will also be used to inform future London Plan circular economy policy and guidance.

3.2.54. 'Pioneering' Circular Economy Statements should look beyond the technical challenges and analyse structural and other issues that have to be addressed to achieve significant Circular Economy goals. Information captured should be validated and shared across the industry wherever possible.

Appendices

3.2.55. As noted previously, when it is intended to send waste to landfill applicants **must** provide written confirmation the receiving facility has the capacity to deal with waste over the lifetime of the development.

3.2.56. In addition, the following should be provided to support the applicant's Circular Economy Statement commitments at full planning stage:

- Independent pre-refurbishment / pre-demolition audit
- References to the relevant extracts from the Site Waste / Resource Management Plan
- Reference to the relevant extracts from the Municipal / Operational Waste Management Plan
- Cut and fill calculations
- Building weight calculation (load take-down)
- Scenario modelling demonstrating adaptability
- Circular Economy workshop / meeting notes
- Relevant extracts from the development brief
- Lean design options appraisal
- Reused or recycled content calculations

3.2.57. Other supporting documents will depend on the specific commitments made for a given project, but might include:

- Design for deconstruction / disassembly study
- Environmental Product Declarations (as evidence of recycled content, healthy materials, renewable energy used in the manufacturing process, etc)

- In-use replacement and repair estimates - if providing a Future Bill of Materials
- Material Circularity Index value and supporting information
- Building as Material Banks (BAMB) Assessment



3.3. Metrics and Reporting Forms

3.3.1. 'Compliant' Circular Economy Statements must include clearly defined activities and targets relating to:

- **Material intensity**

The purpose of reporting this metric is twofold: first, to gather evidence about the material intensity of different structural systems and development types; and second, to ensure that material optimisation is considered as part of the design process.

- **Reused or recycled content**

Applicants should identify opportunities for use of reused or recycled materials and set individual targets of at least 20 per cent by value of materials.¹¹ Note that many production activities that are currently referred to as 'recycling' are in fact 'downcycling'. Examples include solid timber being turned into chipboard, or bricks being crushed into aggregate. In a Circular Economy, the aim should always be to ensure that the material is brought back to a comparable or higher level of quality and value.

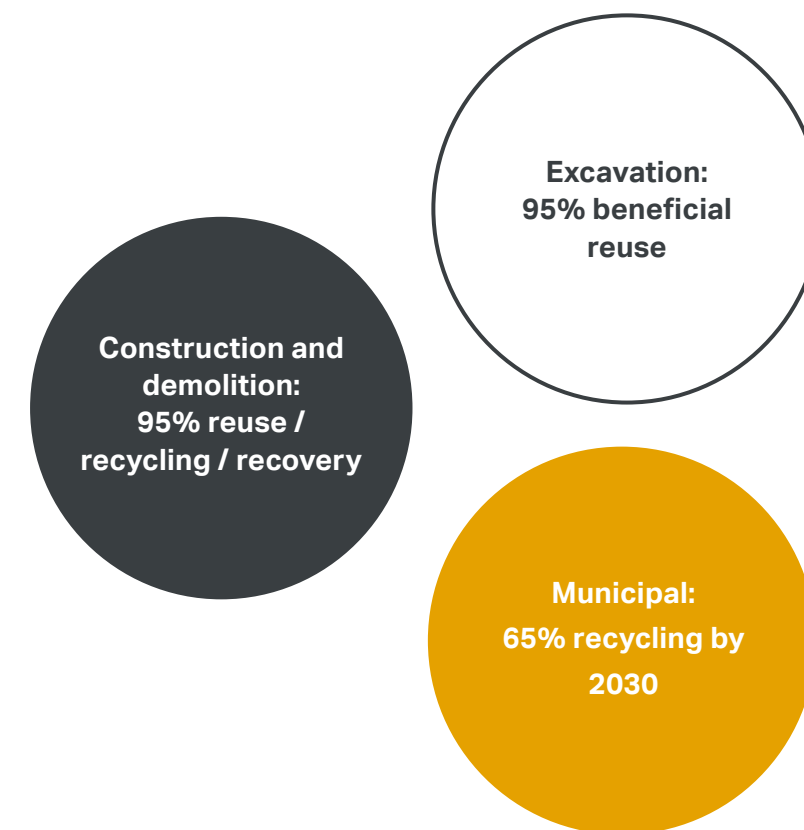
3.3.2. Applicants submitting a detailed Circular Economy Statement must complete the Bill of Materials and the Recycling and Waste Reporting Form set out and explained on the following pages. For further guidance on when to complete these forms refer to Section 3.2. Templates are set out in the Appendices.

3.3.3. At all times, applicants must follow the Waste Hierarchy and ensure that design measures to avoid or reduce waste are prioritised.

3.3.4. In order to be 'compliant' with this guidance, Circular Economy Statements must include clearly defined activities and targets relating to:

¹¹ The expected minimum level of performance based on work by WRAP, experience of the Olympic Delivery Authority and other projects is that at least 20% of the total value of materials used should derive from recycled and reused content in the products and materials selected. See WRAP (2009) 'Delivering higher recycled content in construction projects' [online] Available at: <http://www.wrap.org.uk>

Excavation, demolition, construction and municipal waste (where relevant) → These metrics help to ensure that the proposals acknowledge opportunities to design out waste over the course of the development's life span and effectively meet specific London Plan targets for managing waste and material streams:¹²



After on-site opportunities have been exhausted, applications should refer to the **London Waste Map** to consider opportunities for using local sites to manage materials and waste where practical. This will help keep the value of materials and waste circulating in London, and support achieving the Mayor's 100 per cent net waste self-sufficiency target by 2026¹³ (draft London Plan Policy SI8). Reporting on the amount of waste generated and managed will help applications to

¹² The stricter definition of 'landfill' post-Methley Quarry judgement and recent changes to the regulatory regime for excavated materials means that some permitted sites that are defined as 'landfill' by the Environment Agency can be included in the definition of 'beneficial use' by the GLA. The developer should explain in detail why a proposed site may be regarded as 'beneficial' in these circumstances. Every effort should then be made to use the material in other innovative ways, and to find markets for the products produced from it, in accordance with the waste hierarchy, without causing harmful impacts on the natural environment.

¹³ Note that this excludes excavation waste. The particular characteristics of this waste stream mean that it will be challenging for London to provide either the sites or the level of compensatory provision needed to achieve net self-sufficiency in this regard.

monitor effective waste management performance, and help the GLA monitor progress towards its circular economy and waste policies and targets.

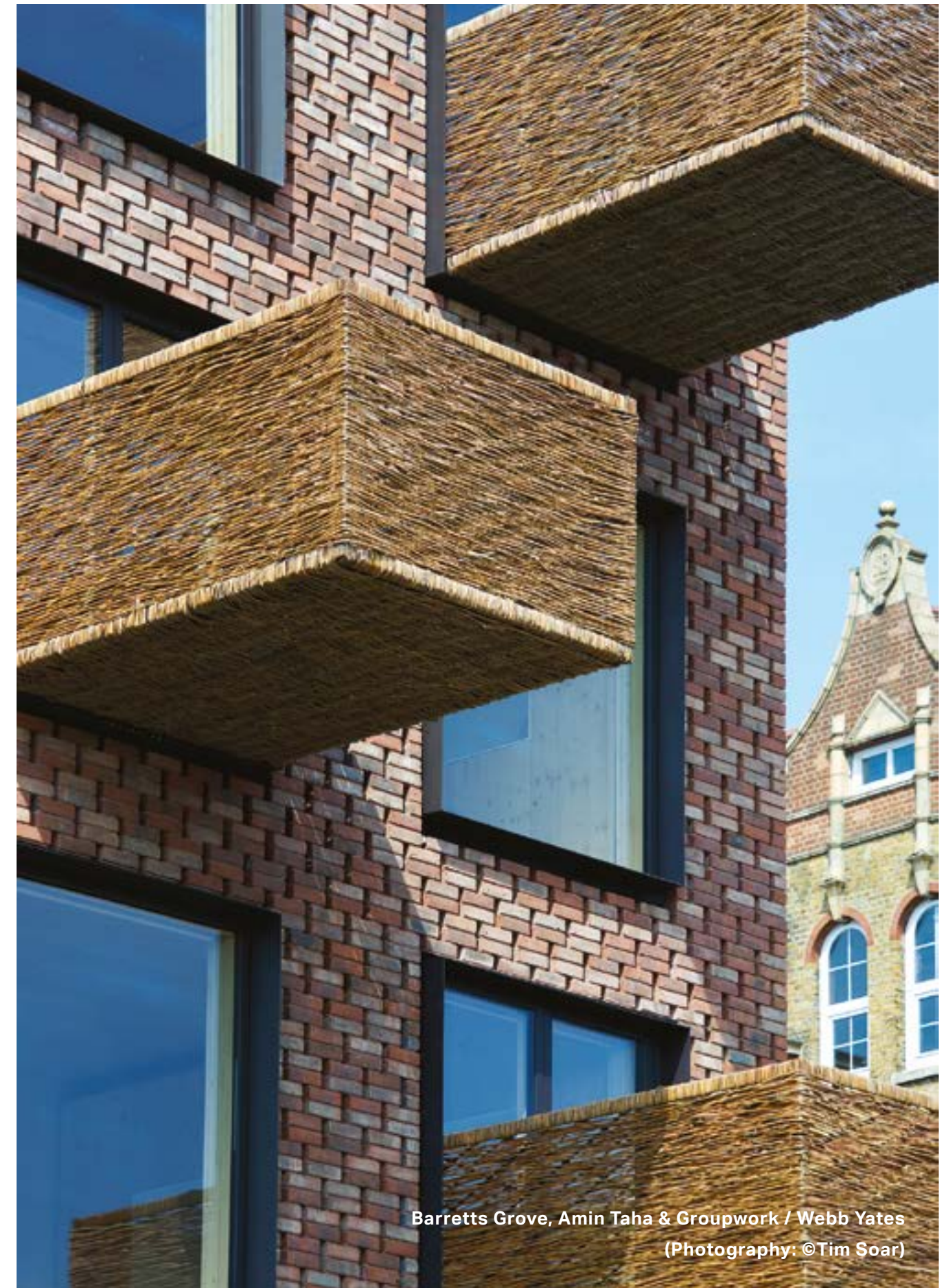
Bill of materials: conserving resources and sustainable sourcing

3.3.5. A template Bill of Materials is provided in Appendix C. The Bill of Materials is intended to encourage teams to reduce material intensity and maximise the amount of content that is responsibly and sustainably sourced (e.g. recycled or reused). Applicants should review different structural options and determine whether the least material intensive construction has been selected. If it has not been selected, assess whether the rationale for not selecting it aligns with the Circular Economy strategic approach (e.g. refurbishment of an existing building, design for adaptability, disassembly, or similar).

3.3.6. Recognising that opportunities will be unique to each development, applicants can either report against targets for different building layers (e.g. structure, Shell/Skin and space) or for different materials (e.g. metals, plastic, timber). If reporting by material, calculations should focus on those with the highest value and aim to address at least 80% of the material used (i.e. 80% by value). If reporting by building layer, applicants should focus on the 'Structure', 'Shell/Skin' and 'Space' as a minimum.

3.3.7. Pioneering statements may include additional columns or rows where additional commitments are being made. Examples are provided (shaded in grey) in the table above. For instance, a building containing elements that can be 100% reused at end of life might include an additional column for 'Estimated reusable materials (kg/m²)' or similar. Applicants should provide evidence as needed. For instance, if reporting on the amount of reused content, they should provide information about where the material will be sourced from, whether any repairs or additional work will be needed to make it useable, etc.

3.3.8. Post-completion, applicants should provide an updated Bill of Materials with actual figures, indicating where these differ from those provided at planning stage where known, with supporting calculations. The following table provides further information relating to the Bill of Materials and describes the calculations required to complete it.



Barretts Grove, Amin Taha & Groupwork / Webb Yates
(Photography: ©Tim Soar)

Bill of Materials
Further information

METRIC	DEFINITION	EVIDENCE / SUPPORTING INFORMATION	REFERENCES AND TOOLS
Material intensity (kg/m ²) - for structure, shell and space layers as a minimum	<p>Self-weight (in kg) of structure and floors, façade, roof and allowance for internal partitions.</p> <p>Gross floor area (m²) for whole project, including areas retained or refurbished.</p>	<p>Note: If the proposal will include a mixture of existing/ refurbished and new buildings, material intensity should be provided for these elements separately and in total.</p> <p>Planning stage:</p> <ul style="list-style-type: none"> → Calculations of material intensity – may be rough estimates based on building load take-down. → If different structural options are being considered, provide a comparison with estimates of the relative weight of each option. <p>Post-completion:</p> <ul style="list-style-type: none"> → Obtain calculations showing actual material intensity of construction. → Note that the materials intensity of the design will change between design and operation. 	<p>A range of weights of buildings can be found in:</p> <p>'Material quantities and embodied carbon dioxide in structures,' Article in Engineering Sustainability · August 2015</p> <p>De Wolf, Yang, Cox et al</p>
Recycled content (%) (% by value) for structure, shell and space layers as a minimum	Quantity of recycled content (as defined in ISO14021) in products, expressed as a percentage of the value of the products.	<p>Planning stage:</p> <ul style="list-style-type: none"> → List of materials with recycled content and breakdown estimate of percentage of value for each material, or completed WRAP Net Waste Tool <p>Post-completion:</p> <ul style="list-style-type: none"> → List of actual construction materials with recycled content and breakdown estimate of percentage of value for each material 	<p>WRAP Net Waste Tool</p> <p>Delivering higher recycled content in construction projects, WRAP, 2009</p> <p>Calculating and declaring recycled content in construction products, 'Rules of Thumb' guide, WRAP</p>
Reused content (%) (% by value) for structure, shell and space layers as a minimum	Reuse is the use of a product in its original form with minimal reprocessing, that was originally destined for waste or recycling.	<p>Completed calculations of reused content in structure, shell and space layers, as a minimum.</p> <p>List of materials / components with reused content and breakdown estimate of percentage of value for each material, focussing on highest value materials. Update post-completion if necessary.</p>	

Recycling and Waste Reporting Forms

3.3.9. A template Recycling and Waste Reporting Form is provided in appendix E. As illustrated in Figure 2 below, applicants should provide an estimate of the total amount of waste or excavation material arising. Then, they should indicate how much will be reused or recycled onsite, how much will be reused or recycled offsite, and the residual waste that will be sent to landfill. If the proposal will include a mixture of existing/ refurbished and new buildings, estimates should be provided for these elements separately and in total.

3.3.10. With regards to the material that is recycled either on or off site, applicants should indicate in the text how the material will be used, distinguishing between uses that maintain or improve the value of a material, and uses that reduce the value of a material (i.e. 'downcycling').

3.3.11. For each metric, applicants should state the methodology or tools used to supply the estimate. They should also cross- reference the relevant section of the Circular Economy Statement describing the process for optimising use of materials, sustainable sourcing and monitoring/ reporting. Estimates should align with the Site Waste / Resource Management Plan(s) and Operational Waste Management Plan.

3.3.12. At planning stage, applicants should provide written evidence that the destination landfill(s) have the capacity to receive waste, along with a notification of the likely destination of all waste streams (beyond the Materials Recycling Facility) where known. During construction, applicants should record the source of all waste arising and monitor using SmartWaste or a similar waste management tool.

3.3.13. Post-completion, applicants should provide an updated Waste Monitoring Form with actual figures, indicating where these differ from those provided at planning stage where known. They should also provide confirmation of the actual destination and amounts of waste and excavated material managed (e.g. figures from recycling facilities on recycling percentage), and that the ultimate receiver of material (e.g. another site) had capacity.

The following table provides further information relating to the Recycling and Waste Reporting Form and describes the calculations

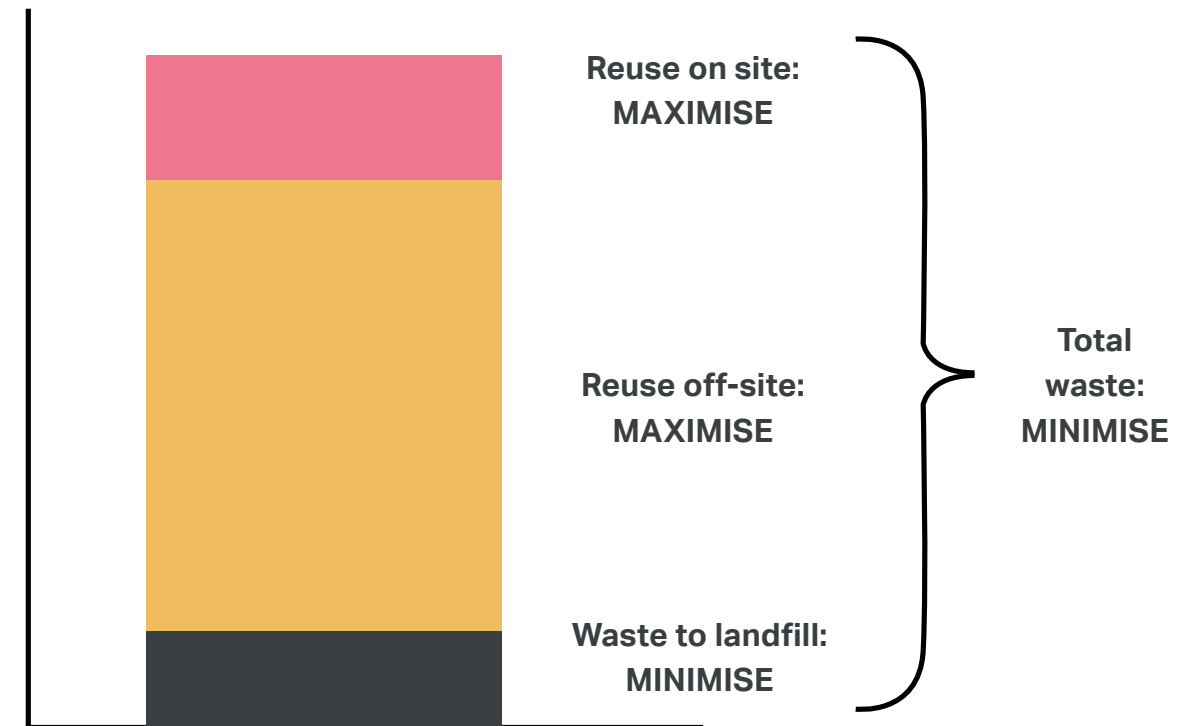
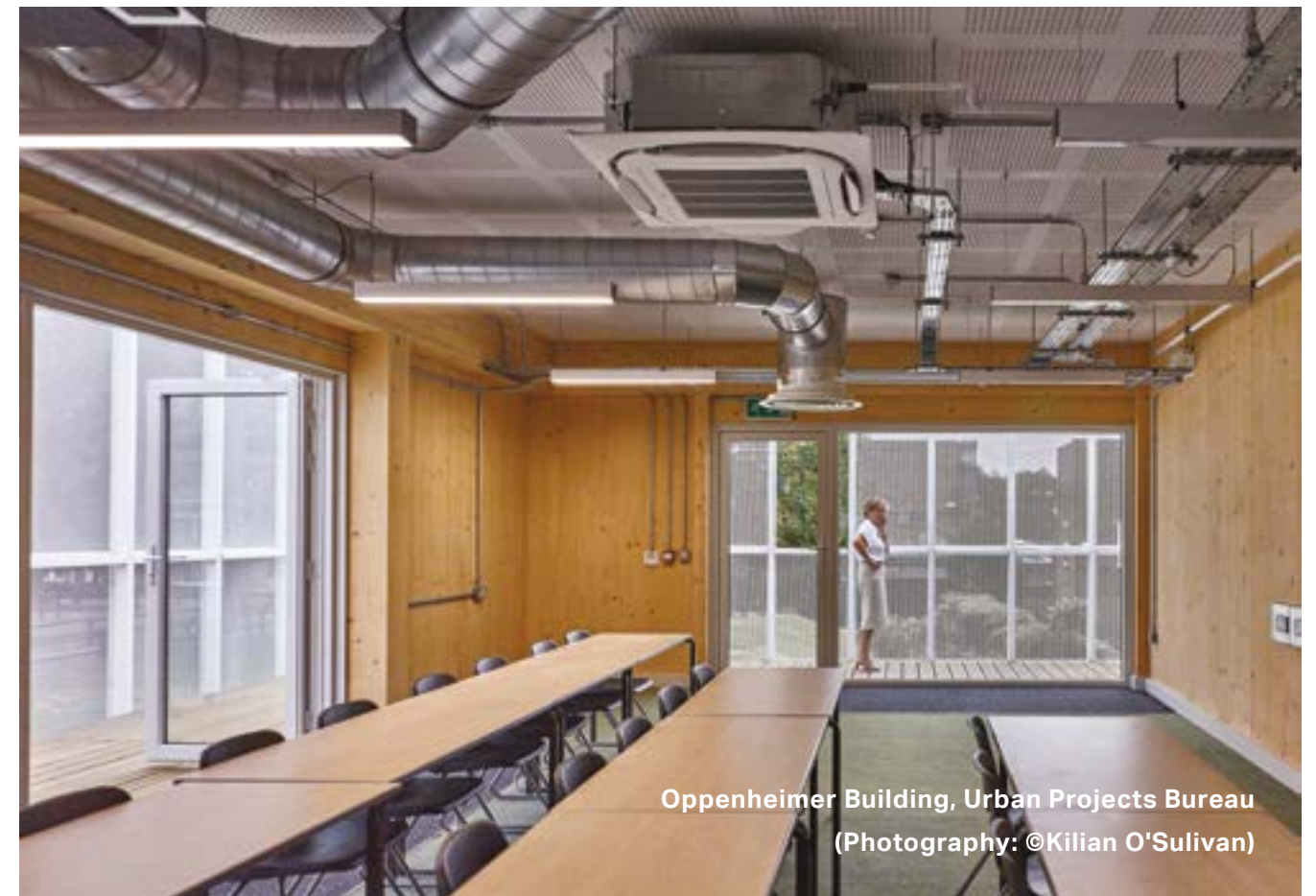


Figure 02 - Recycling and Waste diagram



required to complete it.

Recycling and Waste Reporting Form
Further information

METRIC	DEFINITION	EVIDENCE / SUPPORTING INFORMATION	REFERENCES AND TOOLS
Construction waste	Definition based on BREEAM 2018: Non-hazardous waste materials from on-site construction and dedicated off-site manufacture or fabrication.	Where the same contractor is doing the demolition/strip out and construction, then there will be some overlap between the construction and demolition phases. Therefore, the best estimates of the split should be provided.	BREEAM Wst01: Construction Waste Management SmartWaste or similar waste estimating tool SmartWaste benchmarks
Demolition waste		Calculations to be provided for: The total non-hazardous waste arising (t/100m2 (GIA) or / £100K) → The proportion that will be reused or recycled on site (%) → The proportion that will be reused or recycled off site (%) → The proportion of waste not being reused or recycled (this would include waste sent to landfill or used for energy recovery) (%)	
Excavation waste	Likely excavation material and type of material arising from all excavation activities (e.g. rock, sand, stones, clay, soil).	Calculations to be provided for: → The total estimated material arising (t). If contamination is present, indicate the amount. → The proportion of non-contaminated material that will be reused on site (%) → The proportion of non-contaminated that will be reused off site (%) → The proportion of non-contaminated leaving the site with no destination for reuse (%).	WRAP Net Waste Tool Delivering higher recycled content in construction projects, WRAP, 2009 Calculating and declaring recycled content in construction products, 'Rules of Thumb' guide, WRAP
Estimated municipal waste - for key streams	Municipal waste is household waste and other waste similar in composition to household waste irrespective of who collects it or disposes of it. This includes waste from shops, offices, charities, schools, government buildings, parks and gardens.	Calculations to be provided for: → The total waste arising for key streams (t / annum) or (t / annum / person) → The proportion that that is expected to be reused, recycled or composted either on or off site (%).Commitment to a target for at least 65% municipal waste to be reused, recycled or composted. → The proportion of waste that is expected to be sent to landfill or used for energy recovery) (%) Provision of sufficient storage for the segregation and storage of at least three waste streams (recycling, food and residual waste) in both individual units and communal bin stores where relevant. Schemes of 1000+ units should have at least considered innovative waste management strategies such underground storage, compaction, underground vacuum systems, on site composting and energy generation where deemed appropriate by the Local Authority.	BS 5906:2005, Waste management in buildings - Code of practice, 2005 Also see GLA and local authority guidance e.g. → Sustainable Design SPG → London Environment Strategy → GLA Housing SPG → Resource London waste and recycling planning toolkits , including planning advice for flatted properties. → Improving recycling in flats report

The following table provides further information relating to the optional metrics forms and describes the calculations that could be used to complete them. Applicants are free to adapt these as desired in order to showcase pioneering Circular Economy measures.

Optional Metrics
Further information

METRIC	DEFINITION	EVIDENCE / SUPPORTING INFORMATION	REFERENCES AND TOOLS
'Future Bill of Materials' Repair and replacement quantities (kg)	Calculation of likely quantities of materials required to repair and replace parts of the building, based on the estimated life expectancy of the components (see references). These metrics can be reported by building layer (e.g. structure, shell and space) or by material (e.g. metals, plastic, timber).	<p>Calculation of quantities of materials required to replace and repair parts of the building and description of design measures to reduce the likely demand for raw materials.</p> <p>Calculations should focus on materials with the highest value and aim to address at least 80% of the material used (i.e. 80% by value).</p> <p>The life expectancy of the building should be consistent with the Stage 1 Decision Tree. If the life expectancy differs from the guidance provided in the references, then this should be justified.</p> <p>Post-completion, provide updates / revisions as necessary.</p>	<p>Model Inputs for Process-Based Building Life Cycle Assessment'</p> <p>Bengt Cousins-Jenvey, Pete Walker, Andrew Shea, Anders Johansson, Judith Sykes, July, 2015</p> <p>Allan Ashworth, (1996) "Estimating the life expectancies of building components in life-cycle costing calculations", Structural Survey, Vol. 14 Issue: 2, pp.4-8</p>
Construction waste: Operational Phase	Similar to the calculations required for waste arising during the construction phase of a development, applicants can supply details of the expected waste arising during the operational phase as a result of repair, and refurbishment of the building. Assumptions should be linked to the 'Future Bill of Materials'.	<p>Estimated quantities of waste arising during the replacement and repair of parts of the building, including the proportion likely to be to be reused or recycled on and off site, and the remaining waste that is not being reused or recycled (including waste sent to landfill or energy recovery.)</p> <p>Description of the design measures to reduce the likely waste arising.</p>	BCIS BMI life expectancy of building components, 2006
Demolition / strip-out waste: Operational Phase		<p>The life expectancy of the building should be consistent with the Stage 1 Decision Tree. If the life expectancy differs from the guidance provided in the references, then this should be justified.</p> <p>Post-completion, provide updates / revisions as necessary.</p>	
Demolition / strip-out waste: End of life		<p>The end of life (and next life) plan for the elements of the building should be provided with a calculation of the percentages of waste that can be reused or recycled at end of life.</p> <p>Post-completion, provide updates / revisions as necessary.</p>	

4 ADDITIONAL RESOURCES

4.1.1. Further guidance on how to embed Circular Economy thinking into construction projects with examples include:

- Mayor of London's, Designing for a Circular Economy Primer
- LWARB, 'London's Circular Economy Route Map' (2015)
- UK-GBC Guidance
- Designing out waste (WRAP)
- Building as Materials Banks project papers (BAMB)¹⁴
- Building Revolutions, RIBA Publishing
- Circularity Indicator Project¹⁵
- Cradle to Cradle Building Charter¹⁶
- Designing Buildings Wiki
- Ellen MacArthur Foundation¹⁷
- Green Construction Board's Top Tips¹⁸
- Sustainability assessment methods
i.e. BREEAM, SKA, HQM, WELL, Fitwell
- The Re-Use Atlas: A Designer's Guide Towards a Circular Economy, RIBA Publishing

14 www.bamb2020.eu/library/papers/

15 <https://www.ellenmacarthurfoundation.org/resources/apply/circularity-indicators>

16 www.c2c-centre.com/library-item/cradle-cradle%C2%AE-building-charter

17 www.ellenmacarthurfoundation.org/assets/downloads/Built-Env-Co.Project.pdf

18 www.cetoptips.com

- UK Green Building Council¹⁹
- LWARB guidance for flatted properties²⁰

19 www.ukgbc.org/resource-use/

20 Final report – Waste management planning advice for flatted properties, London Waste and Recycling Board, 2014 <https://resourcelondon.org/resources/toolkits/> and <https://resourcelondon.org/resources/research-and-innovation/making-recycling-work-for-people-in-flats/> Updated guidance (expected in 2019) should be applied.

5 GLOSSARY OF KEY DEFINITIONS

Adaptability (Design for)	Designed to meet the needs of the present, but with consideration of how those needs might change in the future and designed for change in the form of periodic remodelling including alterations or replacement of non-structural parts – modifications are likely to involve planning, building control and ‘wet trades’.
Construction and demolition waste	Arises from construction and demolition (or deconstruction) activities including smaller do-it-yourself projects within private households. Wastes may include concrete, bricks, tiles, ceramics, wood, glass, plastic, bituminous mixtures, coal tar, metals, insulation and gypsum among other materials.
Construction stuff	Any temporary installations/works/materials, packaging and equipment. (NRM 0)
Excavation waste	Material excavated from construction sites, including rock, sand, stones and soils uncontaminated with dangerous substances.
Flexibility (Design for)	Designed to balance the needs of the present with how those needs will change in the future and designed for change through frequent reconfiguring including reconfiguration of non-structural parts – configurations are likely to be pre-agreed with planning and building control and not involve ‘wet trades’ or any waste.

Industrial Waste

Waste produced by industrial activity which includes any material that is rendered useless during a manufacturing process such as that of factories, industries, mills and mining operations. Types of industrial waste include dirt and gravel, masonry and concrete, scrap metal, oil, solvents, chemicals, scrap lumber, even vegetable matter from restaurants. Industrial waste may be solid, liquid or gaseous. It may be hazardous or non-hazardous waste.

Longevity (Design for)

Tailored to well-defined, long term needs while being durable and resilient or able to cope with change with little modification/no replacement of parts due to its ‘loose fit’, generous proportions and readiness for alternative technologies, different ways of living or working and a changing climate.

Municipal waste

Household waste and other waste similar in composition to household waste irrespective of who collects it or disposes of it. It includes all household waste, street litter, waste delivered to council recycling points, municipal parks and gardens wastes, council office waste, Civic Amenity waste, and some commercial waste from shops and smaller trading estates where local authorities have waste collection agreements in place. It can also include industrial waste similar in nature to municipal waste. Waste under the control of local authorities or agents acting on their behalf is now better known as ‘Local Authority Collected Waste’.

Recover Elements and materials converted into new elements and materials and objects for use on the site or on another site nearby.

Refers to “forms of recovery other than energy recovery and other than the reprocessing of waste into materials used as fuels or other means to generate energy. It includes preparing for re-use, recycling and backfilling and other forms of material recovery such as the reprocessing of waste into secondary raw materials for engineering purposes in construction of roads or other infrastructure. Depending on the specific factual circumstances, such reprocessing can fulfil the definition of recycling if the use of materials is based on proper quality control and meets all relevant standards, norms, specifications and environmental and health protection requirements for the specific use” - EU Directive 2018/851.

Recoverability (Design for) Designed to be de-constructed and reused or recycled on a part by part basis due to neither modules nor a kit of parts being desirable, feasible or viable and/or a limited future market as a result of unusual parts, dimensions or specifications.

Refurbish Redeveloped for similar needs and uses but meeting or exceeding current regulations and standards through restoring, refinishing and future proofing while minimising changes and avoiding replacement of any parts. Parts of historical significance are incorporated in the design and carefully preserved. Designed for longevity, adaptability or flexibility to prolong the new life of the development.

Repurpose Redeveloped to accommodate different needs and/or uses (e.g. from industrial use to mixed use) but exceeding current regulations and standards through significant changes and replacement of shorter-life parts. Parts of historical significance are incorporated in the design and carefully preserved. Designed for longevity, adaptability or flexibility to prolong the new life of the development.

Reusability (Design for) Designed to be redeployed as modules or reused as a kit of parts on one or more different sites while minimising any servicing and maximising the size of the future market by using high-demand, standard dimensions and specifications.

Sustainable Sourcing For the purposes of this document sustainable sourcing, or ‘responsible sourcing’ as it is also commonly known, addresses a range of issues, including but not limited to material traceability, health and safety, and environmental management through the supply chain; energy, resource and water use, greenhouse gas emissions, and ecotoxicity. Responsible sourcing is described in standard BES 6001.²¹

Services Installations to ensure comfort, practicality, accessibility and safety. (NRM 5)

Shell / Skin The layer keeping out water, wind, heat, cold, direct sunlight and noise. (NRM 2.3, 2.5, 2.6 - roofs, external walls, windows and external doors)

21 <https://www.bsigroup.com/en-GB/bes-6001-responsible-sourcing-of-construction-products/>

Site	The geographical setting, urban location and external works. (NRM 8)
Space	The layout, internal walls, ceilings, floors, finishes, doors, fitted furniture. (NRM 2.7, 2.8 and NRM 3)
Stuff	Anything that would fall if the building was turned upside down.
Substructure	Excavations, foundations, basements and ground floors. (NRM 1)
Superstructure	Load-bearing elements above plinth including roof supporting structure. (NRM 2.1, 2.2 and 2.4 - frame, upper floors, stairs and ramps)

Waste management definitions

Backfilling	"Any recovery operation of suitable non- hazardous waste for the purposes of reclamation in excavated areas or for engineering purposes in landscaping" and quantity of waste used for backfilling "should be limited to the amount strictly necessary to achieve those purposes". ²²
Composting	Aerobic decomposition of bio-waste "in a way that fulfils a high level of environment protection and results in output which meets relevant high-quality standards". ²³

22 EU Directive 2018/851

23 EU Directive 2018/851

Downcycling The opposite of upcycling and the transformation of products materials into lower quality and/or lower value products and materials.

Recover "Forms of recovery other than energy recovery and other than the reprocessing of waste into materials used as fuels or other means to generate energy. It includes preparing for re-use, recycling and backfilling and other forms of material recovery such as the reprocessing of waste into secondary raw materials for engineering purposes in construction of roads or other infrastructure. Depending on the specific factual circumstances, such reprocessing can fulfil the definition of recycling if the use of materials is based on proper quality control and meets all relevant standards, norms, specifications and environmental and health protection requirements for the specific use".²⁴

24 EU Directive 2018/851

Recycle

The conversion of waste into new materials and products by remanufacturing in ways that reduce demands for extracting raw materials from the natural environment.

As defined in the draft London Plan, recycling involves the reprocessing of waste, either into the same product or a different one. Many non-hazardous wastes such as paper, glass, cardboard, plastics and metals can be recycled. Hazardous wastes such as solvents can also be recycled by specialist companies, or by in-house equipment.

Note that many of the production activities that are currently referred to as 'recycling' are in fact 'downcycling' (see above). Examples include solid timber being turned into chipboard, or bricks being crushed into aggregate. In a Circular Economy, the aim should always be to ensure that the material is brought back to an equal or comparable level of quality and value.

Recycle (continued)

EU Directive 2018/851 provides further guidance on what qualifies as recycling as follows:

- Waste converted into secondary raw materials for engineering purposes in construction of roads or other infrastructure can fulfil the definition of recycling if the use of materials is based on proper quality control and meets all relevant standards, norms, specifications and environmental and health protection requirements for the specific use.
- Waste that enters aerobic or anaerobic treatment can be counted as recycled provided that such treatment generates output which is to be used as a recycled product, material or substance.
- Waste ceasing to be waste as a result of a preparatory operation before being actually re-manufactured (or reprocessed) can be counted as recycled provided that it is destined for subsequent; reprocessing into products, materials or substances for either the original or other purposes.
- Waste to be used as fuels or other means to generate energy, which are backfilled or disposed of, or which are to be used in any operation that has the same purpose as recovery of waste other than preparing for reuse and recycling, **should not** be counted as recycled.

Reduce

The design, manufacture and use of products that use materials and other resources efficiently and effectively with consideration of waste throughout the entire life cycle including their suitability for reuse or recycling (with minimal reprocessing or remanufacturing).



South London Gallery Fire Station, 6a
(Photography: ©Johan Dehlin)

APPENDICES

APPENDIX A - TABLE 1: STRATEGIC APPROACH

ASPECT	PHASE / BUILDING / AREA	STEERING APPROACH	EXPLANATION	TARGET	SUPPORTING ANALYSIS / STUDIES / SURVEYS / AUDITS
Circular economy approach for the new development				<i>95% diversion from landfill at end of life</i>	
	<i>Use additional rows where differentiation is appropriate</i>				
Circular economy approach for the existing site				<i>95% diversion from landfill</i>	
	<i>Use additional rows where differentiation is appropriate</i>				
Circular economy approach for municipal waste during operation				<i>65% diversion from landfill</i>	

APPENDIX B COMPLETING TABLE 02

Teams can use Table 2 to facilitate Circular Economy workshop(s) to ensure that all opportunities have been considered for each layer of the building. Prior to submission, review the table to check for coherence and ensure that all commitments are accompanied by a specific delivery strategy.

Further details are provided below.

Section A guides designers to focus on conserving materials and resources, and to source materials responsibly.

Section B encourages designers to design out waste through measures such as designing to facilitate maintenance (therefore retaining materials and products in service for as long as possible), and through careful selection of construction techniques or procurement strategies.

Section C is where designers should consider measures that can be taken to manage any waste that is generated, by increase reuse and recycling rates.

Summaries should be drafted for each row of the table, considering if and how well the measures for the different layers will work in contributing to achieve the requirements, targets and aspirations. Any potentially conflicting measures should be identified and noted. Teams should also note any potential **challenges** or obstacles.

Counter-actions should be proposed to address the challenges identified. These must have clear owners and time frames. Metrics and targets set out in Section 2 should be selected to clarify how performance will be quantified and monitored.

Measures linking across layers and opportunity areas should be highlighted. The narrative portion of the Circular Economy Statement should be used to provide additional details of the plans to deliver each commitment.

Below are sample prompts that can be used during a Circular Economy workshop. Counter-actions should be specific to each project or organisation.

Type	Prompt challenges	Example counter-actions
Commercial	Higher initial capital costs / Investor or lender concerns.	Ensure value-engineering is not solely driven by lowest capital cost.
Logistical	Slower / supply delays / site features / space constraints / storage.	Schedule around slower work (off the 'critical path'), identify vacant sites.
Technical	A lack of - research and development / innovation precedents / testing / certainty or confidence.	Undertake precedent searches, accelerated research development and innovation, modelling and prototypes.
Legal	Inappropriate contracts / too much risk / too little reward.	Review contracts, clauses, insurance (e.g. Integrated Project Insurance).
Social	Wrong culture / attitudes / systems and processes / safe or health concerns.	Increase awareness of the brief, mandates, incentives, health and safety team roles.
Political	Unsupported or incompatible with policy / regulations / standards/	Seek work-arounds, highlight barriers, recommend amendments
Environmental	Noise / vibration / dust / vehicle movements or congestion.	Implement different working hours, screens, covers and reverse logistics.

APPENDIX B - TABLE 2: KEY COMMITMENTS

	Site	Substructure	Super-structure	Shell/Skin	Services	Space	Stuff	Construction Stuff	Summary	Challenges	Counter-Actions + Who + When	Plan to prove and quantify
SECTION A: CONSERVE RESOURCES												
Minimising the quantities of materials used												
Minimising the quantities of other resources used (energy, water, land)												
Specifying and sourcing materials responsibly and sustainably												
SECTION B: DESIGN TO ELIMINATE WASTE (AND FOR EASE OF MAINTENANCE)												
Designing for reusability / recoverability / longevity / adaptability / flexibility												
Designing out construction, demolition, excavation, industrial and municipal waste arising												
SECTION C: MANAGE WASTE												
Demolition waste (how waste from demolition of the layers will be managed)												
Excavation waste (how waste from excavation will be managed)												
Construction waste (how waste arising from construction of the layers will be reused or recycled)												
Municipal and industrial waste (how the design will support operational waste management)												

APPENDIX C - BILL OF MATERIALS TEMPLATE

Layer	Element	Material quantity (kg)	Material intensity (kg/m ² Gross Internal Area)	Recycled content (% by value)	Reused content (% by value)	Estimated reusable materials (kg/m ²)	Estimated recyclable materials (kg/m ²)	Source of information [Examples are given below]
Structure	<i>e.g. Foundation</i>			<i>Min. 20% ambition</i>	OPTIONAL	OPTIONAL	OPTIONAL	<i>Building weight calculation Specification documents, Environmental Product Declarations, or other evidence of recycled content</i>
	<i>e.g. Floors</i>			<i>Min. 20% ambition</i>				
	<i>e.g. Roof</i>			<i>Min. 20% ambition</i>				
	<i>Add rows as needed</i>			<i>Min. 20% ambition</i>				
Shell/Skin	<i>e.g. Cladding</i>			<i>Min. 20% ambition</i>				
	<i>Add rows as needed</i>			<i>Min. 20% ambition</i>				
Space	<i>e.g. Partitions</i>			<i>Min. 20% ambition</i>				
	<i>Add rows as needed</i>			<i>Min. 20% ambition</i>				

APPENDIX D - RECYCLING AND WASTE REPORTING TEMPLATE

CATEGORY	TOTAL ESTIMATE	OF WHICH...	SOURCE OF INFORMATION		
	t/m ² Gross Internal Area (GIA)	% reused or recycled onsite	% reused or recycled offsite	% not reused or recycled max 5%	
				% to landfill	% to other management (e.g. incineration)
Excavation waste					
Demolition waste					
Construction waste					
	t/annum	% reused on or off site	% recycled or composted, on or off site	% not reused or recycled	
				% to landfill	% to other management (e.g. incineration)
Municipal waste				Max. 35% and no recyclable or compostable waste	
Industrial waste (if applicable)				Max. 35% and no recyclable or compostable waste	

APPENDIX E - EXAMPLES OF OPTIONAL METRICS (Pioneering statement only)

The following templates can be used or adapted by 'pioneering' developments to demonstrate that consideration has been given to minimising and managing the waste arising during the operational phase of the building (e.g. repairs, replacement, maintenance) and/or at end of life.

'FUTURE BILL OF MATERIALS'

LAYER	ELEMENT	ASSUMED NUMBER OF REPLACEMENTS	REPAIR AND REPLACEMENT QUANTITIES OF MATERIALS (KG)	STRIP-OUT WASTE ARISING (T)	CONSTRUCTION WASTE ARISING (T)	SOURCE OF INFORMATION <i>[EXAMPLES PROVIDED BELOW]</i>
Structure	<i>e.g. Foundation</i>	-				<i>Life-cycle costing plans</i> <i>Design for Disassembly Strategy</i> <i>RICS 'New Rules of Measurement'</i> <i>(contains estimated life-cycles for different building elements)</i>
	<i>e.g. Floors</i>	-				
	<i>e.g. Roof</i>	<i>e.g. 1no. in building life (after 40 years)</i>				
	<i>Add rows as needed</i>					
Shell/Skin	<i>e.g. Cladding</i>					
	<i>Add rows as needed</i>					
Space	<i>e.g. Partitions</i>	<i>e.g. 3no. strip outs and replacements</i>				
	<i>Add rows as needed</i>					

**APPENDIX E - EXAMPLES OF OPTIONAL METRICS
(Pioneering statement only)**

'ENHANCED' WASTE REPORTING

CATEGORY	TOTAL ESTIMATE	OF WHICH...			SOURCE OF INFORMATION
	t/m ² Gross Internal Area (GIA)	% reused or recycled onsite	% reused or recycled offsite	% to landfill / not reused or recycled	<i>[Examples provided below]</i>
OPERATIONAL STAGE					Operational Waste Management Plan
Demolition / strip-out waste				<i>Max. 5%</i>	Life-cycle costing plans Design for Disassembly Strategy
Construction waste				<i>Max. 5%</i>	RICS 'New Rules of Measurement' (contains estimated life-cycles for different building elements)
END OF LIFE / DECOMMISSIONING STAGE					
Total materials					

ABOUT GOOD GROWTH BY DESIGN

Good Growth by Design

The Mayor's Good Growth by Design programme seeks to enhance the design of the built environment to create a city that works for all Londoners. This means development and growth should benefit everyone who lives here. As such, it should be sensitive to the local context, environmentally sustainable, and physically accessible.

The programme calls on all involved in London's growing architectural, design and built environment professions to help realise the Mayor's vision.

Good Growth by Design uses the skills of both the Mayor's Design Advocates and the wider sector. This includes teams here at City Hall, the London Boroughs and other public bodies.

The programme has six pillars:

SETTING STANDARDS

Using design inquiries to investigate key issues for architecture, urban design and place-shaping, in order to set clear policies and standards.

APPLYING STANDARDS

Ensuring effective design review and scrutiny across London, including establishing a London Review Panel.

BUILDING CAPACITY

Enhancing the GLA Group's and boroughs' ability to shape new development to deliver good growth.

SUPPORTING DIVERSITY

Working towards a more representative sector and striving for best practice while designing for diversity.

COMMISSIONING QUALITY

Ensuring excellence in how the Mayor and other public sector clients appoint and manage architects and other built environment professionals.

CHAMPIONING GOOD GROWTH

Advocating best practice to support success across the sector.

The Mayor's Design Advocates

The Mayor's Design Advocates are 50 built environment professionals. They were chosen for their skill and experience to help the Mayor support London's growth through the Good Growth by Design programme. They are independent and impartial, and provide support, advice, critique and expertise on London's built environment. The group includes practitioners, academics, policy makers and those from community-led schemes. Fifty per cent of the advocates are women, and one in four are from a BAME background.

Setting Standards: Circular Economy

The Mayor's Design Advocates and City Hall's Regeneration and Economic Development, Environment and Planning teams have been developing research related to the circular economy in response to policy SI7 in the draft London Plan. This work has been led by the Circular Economy Sounding Board with support from sustainability consultants Useful Projects. This document shows the Mayor's commitment and leadership, with London leading the way in the transition to a circular economy. It is a call to action for the built environment sector and construction industry to join him by applying new design approaches to projects, supporting the Mayor's aim of making London a sustainable and inclusive city for all Londoners.

ABOUT GOOD GROWTH

Good growth...

- Means building a more inclusive city and an inviting place to live, work and visit. This will help improve the health and well-being for all Londoners.

- Plans for a balanced mix of young and old, of people from different cultures and backgrounds, of housing tenures and workplaces.

- Supports and enriches a city's public and civic spaces along with the streets and routes that connect them. It takes a contextual approach. This allows for vitality and change whilst sustaining and strengthening the character of London's existing neighbourhoods.

- Allows Londoners to benefit from living actively. It uses the 'Healthy Streets' approach to reduce car dependency and enable people to walk, cycle and use public transport instead.

- Helps the city to work more efficiently by reducing car dominance. This helps make the best use of public space and ensures that essential freight traffic can help London's businesses to thrive.

- Prioritises high-density, mixed-use developments to create a compact city in which communities are well connected. It means people do not have to depend on cars to get around and ensures the best use is made of scarce land.

- Is a partnership between the public and private sector. It takes a long-term approach to investment to yield the wider benefits of change.

- Ensures that London remains resilient to our changing climate and is green and healthy. It means clean air, easy access to green space, more efficient buildings supplied by cleaner energy, and a move towards zero emission transport.

- Enables everyone to fulfil their potential, by providing inclusive access to transport and other public services. It ensures that all communities see the benefits of growth and enables broader public participation in how the city changes.



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Academia – Imperial College London, University of Sheffield

Public Sector – Environment Agency, European Commission Circular Construction in Regenerative Cities (CIRCuiT), London Waste and Recycling Board, London Waste Planning Forum

Circular Economy Sounding Board

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www.london.gov.uk/what-we-do/regeneration/advice-and-guidance/about-good-growth-design

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**A
BUILT
ENVIRONMENT**

**FOR
ALL
LONDONERS**

