

OPERATIONAL WASTE MANAGEMENT PLAN

BRANCH HILL HOUSE

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OPERATIONAL WASTE MANAGEMENT PLAN

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1 INTRODUCTION

- 1.1 RPS has been appointed by Almax Group (hereafter referred to as the 'Applicant') to prepare an Operational Waste Management Plan (hereafter referred to as the 'WMP') for the detailed application for the proposed redevelopment of Branch Hill House (hereafter referred to as the 'proposed development') located in Hampstead, Camden. This Plan has been written by RPS using information provided by Stanhope Gate Architects.
- 1.2 The principal aim of this WMP is to demonstrate how the Proposed Development has taken into account sustainable methods for waste management during its operation. The Plan has been prepared in-line with the London Borough of Camden's (LBC) waste management policy and guidance and has been prepared with the following principles and objectives in mind:
 - To contribute towards achieving current and long-term UK government and LBC targets for waste minimisation, recycling and re-use;
 - To comply with all legal requirements for handling operational waste;
 - To achieve high standards of environmental performance with respect to waste management; and
 - To provide users of the Proposed Development with convenient, clean and efficient waste systems that enhances the operation of the buildings and promote high levels of recycling.
- 1.3 According to Department of Food and Rural Affairs (DEFRA) data, LBC had one of the largest increases in recycling rates in the UK from 2016/17 to 2017/18 increasing from 26.6% to 30.3%. Accordingly, this WMP aims to support this trend and encourage further improvements in recycling rates.
- 1.4 The key aims of this WMP are to:
 - Provide estimations on the anticipated waste generation within the proposed development;
 - Provide a strategy for the management of the anticipated waste generation within the development, from the point where waste is generated to the point where it is collected for off-site treatment;
 - Ensure that residents can easily segregate recyclables and are encouraged to do so;
 - Allow waste to be disposed of easily, and be stored and collected in an efficient and discreet manner;
 - Ensure that the proposed development has adequate facilities and space to adapt to any future waste management trends and practices; and
 - Ensure that national and local targets, as well as all client waste management aims and aspirations, are met.
- 1.5 Planning for future operational waste management ensures that buildings will be able to operate efficiently and sustainably, while minimising the impacts on the design requirements and building performance. Waste management operations need to be safe, discreet and efficient in order to minimise the impacts on a building's users, while also ensuring waste can be collected, stored, re-used, recycled and disposed of quickly and efficiently. A successful strategy will follow the basic principles of the waste hierarchy, illustrated in Figure 1 and outlined as follows:
 - Minimise the amount of waste produced and avoid producing waste in the first instance;
 - Re-use items as many times as possible;
 - Recycle what cannot be re-used or is no longer needed;
 - Turn waste materials into new products i.e. the generation of energy from waste; and

• Dispose of what is unable to be recovered in a responsible way.





1.6 Waste management is an industry which is evolving at a fast pace, with new policy and practices to be implemented. As such, this WMP also ensures that the development incorporates adequate future-proofing and flexibility to adapt to future waste management practices.

2 LEGISLATION AND PLANNING POLICY

2.1 A summary of national legislation and national, regional and local planning policy relevant to the Proposed Development is provided in the following sections. It should be noted that this summary identifies those elements of the policy or guidance applicable to waste management within the Proposed Development, and does not provide a comprehensive summary of the identified legislation or policy.

2.2 Legislation

2.2

Waste legislation considered relevant to the Proposed Development includes:

- The Animal By-Products (England) Regulations 2009 (as amended 2015);
- Clean Neighbourhoods and Environment Act 2005 (as amended 2015); •
- Control of Pollution Act (COPA) 1974 (as amended 1989); .
- The Controlled Waste (England and Wales) Regulations 2012; .
- The Environment Act 1995; •
- Environmental Protection Act 1990 (EPA);
- The Waste Enforcement (England and Wales) Regulations 2018; •
- The Landfill Tax Regulations 1996 (as amended 2017); .
- The List of Wastes (England) Regulations 2005 (as amended 2005); •
- The Packaging (Essential Requirements) Regulations 2015;
- The Pollution Prevention and Control (England and Wales) Regulations (as amended 2017);
- The Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (as amended . 2016);
- The Hazardous Waste Regulations 2005 (as amended 2016);
- The Waste (England and Wales) Regulations 2011 (as amended 2014); •
- The Waste Batteries and Accumulators Regulations 2009 (as amended 2015); .
- The Waste Electrical and Electronic Equipment (WEEE) Regulations 2015; and .
- The Waste Management (England and Wales) Regulations 2006 (as amended 2007). •

2.3 National Planning Policy

National Planning Policy Framework

- 2.1 The National Planning Policy Framework (NPPF) (outlines the Government's planning policies for England and how they are expected to be applied. The document identifies three dimensions to sustainable development, with the environmental dimension being one of them. As part of the environmental dimension, the document notes that efforts must be made to minimise waste generation and increase re-use and recycling.
- 2.2 The NPPF does not contain specific waste policies; instead, national waste planning policy is contained within the Waste Management Plan for England (2013), the National Planning Policy for Waste (2014), the Resources and Waste Strategy for England (2018) and Planning Practice Guidance as discussed below.

Planning Practice Guidance (2014)

- 2.3 Planning Practice Guidance (PPG) provides a web based resource in support of the NPPF. There are two guidance documents that are relevant to waste: 'Design' and 'Waste'.
- 2.4 The document entitled 'Design' states that carefully planned bin storage is particularly important and Local Authorities should make sure that each dwelling is carefully planned, so that sufficient storage is provided, which is discretely designed and accessible. Storage should be allocated based on practices within the specific Local Authority (e.g. relating to recycling, food waste collection and landfilling).
- 2.5 The document entitled 'Waste' outlines the consideration local planning authorities should give towards waste management, both within Local Plans and with regards to the Waste Hierarchy. This includes guidance on considerations to be included within development planning applications:
 - The promotion of the "sound management of waste from any proposed development, such as encouraging internal management of waste where this is appropriate, or including a planning condition to encourage or require the developer to set out how waste arising from the development is to be dealt with";
 - "Ensuring that collections of household and similar waste are organised so as to help towards achieving the higher levels of the Waste Hierarchy";
 - That steps are "taken to ensure effective segregation of wastes at source including, as appropriate, the provision of waste sorting, storage, recovery and recycling facilities"; and
 - That it will be useful for proposals that are likely to generate significant volumes of waste through the development or operational phases to include a waste audit. "*This audit should demonstrate that in both construction and operational phases of a proposed development, waste will be minimised as far as possible and that such waste as is generated will be managed in an appropriate manner in accordance with the Waste Hierarchy*".

Resources and Waste Strategy for England (DEFRA, 2018)

- 2.6 This strategy lays out a number of aims and actions to be taken to preserve natural resources, minimise waste, promote resource efficiency and move towards a circular economy. The document has many ambitions in line with the Government's 25 Year Environment Plan. The targets include:
 - The proportion of municipal waste sent to landfill to be 10% or less by 2035;
 - A 65% recycling rate for municipal solid waste;
 - Legislation for mandatory separate food waste collections by 2023; and
 - Eliminate avoidable waste of all kinds by 2050.

Waste Management Plan for England (DEFRA, 2013)

- 2.7 The Waste Management Plan for England is a high level document which describes how the government intends to work towards a more efficient and sustainable approach to waste and resource use/management and outlines the steps required to move towards a zero waste economy.
- 2.8 It provides an analysis of the waste management situation in England and how it will aim to achieve the objectives and provisions of the EU Waste Framework Directive.
- 2.9 A number of key targets from the Waste (England and Wales) Regulations 2011 (as amended 2014) are reiterated in the plan, including the following:

- At least 50% by weight of waste from households is prepared for re-use or recycled by 2020; and
- At least 70% by weight of construction and demolition waste is subject to material recovery by 2020.

National Planning Policy for Waste (2014)

- 2.10 The National Planning Policy for Waste provides the planning framework to enable Local Authorities to put forward, through local waste management plans, strategies that identify sites and areas suitable for new or enhanced facilities to meet the waste management needs of their areas.
- 2.11 The National Planning Policy for Waste states that when determining planning applications for non waste developments, Local Authorities should ensure that:
 - "the likely impact of proposed, non-waste related developments on existing waste management facilities, and on-sites and areas allocated for waste management, is acceptable and does not prejudice the implementation of the Waste Hierarchy and/or the efficient operation of such facilities";
 - "new, non-waste developments make sufficient provision for waste management and promote good design to secure the integration of waste management facilities with the rest of the development and, in less developed areas, with the local landscape. This includes providing adequate storage facilities at residential premises, for example, by ensuring that there is sufficient and discrete provision for bins, to facilitate a high quality, comprehensive and frequent household collection service"; and
 - "the handling of waste arising from the construction and operation of development maximises reuse/recovery opportunities, and minimises off-site disposal."

2.4 Regional and Local Policy

The London Plan (March 2016)

- 2.14 The London Plan outlines the Mayor's commitment to making better use of waste and its management, in an attempt to reduce London's impact on climate change. The London Plan describes waste as a valuable resource which can be exploited for London's environmental, economic and social benefit. The following London Plan policies are relevant to waste:
- 2.15 Policy 5.16 states that "the Mayor will work with London Boroughs and waste authorities, the London Waste and Recycling Board (LWaRB), the Environment Agency, the private sector, voluntary and community sector groups, and neighbouring regions and authorities to:
 - Manage as much of London's waste within London as practicable, working towards managing the equivalent of 100% of London's waste within London by 2026
 - Create positive environmental and economic impacts from waste processing
 - Work towards zero biodegradable or recyclable waste to landfill by 2026.
- 2.16 This will be achieved by:
 - Minimising waste;
 - Encouraging the reuse of and reduction in the use of materials;
 - Exceeding recycling/composting levels in local authority collected waste of 50 per cent by 2020 and aspiring to achieve 60 per cent by 2031;
 - Exceeding recycling/composting levels in commercial and industrial waste of 70 per cent by 2020; and

- Improving London's net self-sufficiency through reducing the proportion of waste exported from the capital over time."
- 2.17 Policy 5.17 states that suitable waste and recycling storage facilities are required in all new developments.

Draft New London Plan, 2018

- 2.18 The Draft New London Plan sets out three main policies relating to waste management:
 - Policy D1 London's form and characteristics states that "Shared and easily accessible storage space supporting separate collection of dry recyclables, food waste and other waste should be considered in the early design stages to help improve recycling rates, reduce smell, odour and vehicle movements, and improve street scene and community safety";
 - Policy D4 Housing quality and standards states that "Housing should be designed with adequate and easily accessible storage space that supports the separate collection of dry recyclables (for at least card, paper, mixed plastics, metals, glass) food waste, as well as residual waste."; and
 - Policy SI7 Reducing waste and supporting the circular economy states that developments should be designed "with adequate, flexible, and easily accessible storage space and collection systems that support, as a minimum, the separate collection of dry recyclables (for at least card, paper, mixed plastics, metals, glass) and food".
- 2.19 The Draft New London Plan puts emphasis on the need for a circular approach to move towards a low carbon economy. A circular economy, is similar in principles to the waste hierarchy, differing by aiming for zero waste to landfill, instead keeping resources in a continuous loop. The following targets have been set under Policy SI7:
 - 'a more circular economy that improves resource efficiency and innovation';
 - waste minimisation and waste avoidance through the reuse of materials and using fewer resources;
 - zero biodegradable or recyclable waste to landfill by 2026;
 - municipal waste recycling and energy from waste- 65 per cent by 2030; and
 - Designing developments with adequate and easily accessible storage space that supports the separate collection of dry recyclables (at least card, paper, mixed plastics, metals, glass) and food.

The London Environment Strategy (Mayor of London, 2018)

2.20 This document outlines many aims and objectives in relation to environmental aspects of London. For waste, there is a focus on moving towards a circular economy as well as achieving selfsufficiency in London. The main aims relevant to operational waste include:

- By 2025, local authority collected waste is to reach a 50% recycling rate;
- By 2026, no biodegradable waste is to be sent to landfill; and
- By 2030, 65% of London's waste is to be recycled.

North London Waste Prevention Plan, Proposed Submission Plan (2019)

2.21 The North London Waste Authority (NLWA) comprises the London Boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington and Waltham Forest. Under this partnership the NLWA and its seven constituent Boroughs are working together to identify new waste management facilities capable of managing waste generated in North London, as per the targets of the London Plan. To achieve this, the seven Boroughs have developed 'The North London Waste Plan'. Once adopted, the NLWP will form part of the 'Development Plan' for each of the North London Boroughs which comprises the London Plan and borough Local Plans. Each borough has a strategic waste policy as part of their Local Plan, which defer to the NLWP to provide a more detailed planning framework for waste development across the seven boroughs.

- 2.22 The NLWP has two main purposes:
 - to ensure there will be adequate provision of suitable land to accommodate waste management facilities of the right type, in the right place and at the right time up to 2035 to manage waste generated in North London; and
 - to provide policies against which planning applications for waste development will be assessed, alongside other relevant planning policies/guidance.

Camden Local Plan (2017)

2.23 The Camden Local Plan (Policy CC5 Waste) aim is to reduce the amount of waste produced in the borough and increase recycling and the reuse of materials to meet the London Plan targets of 50% of local authority collected waste to be recycled or composted by 2020, and the aspiration to achieve 60% by 2031. The Policy also requires that developments include appropriate facilities for the storage and collection of waste and recycling.

Camden Planning Guidance: Design (March 2019)

2.24 The Camden Planning Guidance (CPG) is a supplementary planning document which supports, and should be read in conjunction with, the Camden Local Plan 2017. The CPG relates to Policy CC5 of the Camden Local Plan and provides detailed design guidance on the storage and collection of recycling and waste, with the following overarching message:

"Developers should ensure that all waste systems and storage areas in new developments or refurbished developments are:

- designed to provide adequate space for the temporary storage of all types of waste, including internal storage areas with sufficient space for the separation of temporary storage of all recycling, food waste and residual waste;
- sensitively designed and located in relation to the local environment especially in conservation areas and listed buildings;
- safely located and accessible for all users, including waste contractors, and designed to minimise nuisance to occupiers and neighbours and their amenity;
- sufficiently flexible to accommodate future increases in recycling targets;
- designed to include where appropriate, innovative waste management solutions that increase efficiency and help meet and exceed recycling and other waste reduction targets."
- 2.25 The CPG is accompanied by a Technical Guidance: *Waste storage and arrangements for residential and commercial units*, which aims to assist those involved in the design and management of buildings to best provide for the temporary storage and transfer of wastes to maximise the type and amounts that can be reused or sent for recycling or repurposed.

3 THE PROPOSED DEVELOPMENT

- 3.1 The Proposed Development comprises part demolition of the existing Branch Hill House, refurbishment of the remaining building and construction of a new extension to deliver 34 new residential units with new public realm and landscaping.
- 3.2 The development would deliver the following unit mix over five storeys (ground floor plus four storeys):
 - 12 x one-bed units;
 - 6 x two-bed units;
 - 13 x three-bed units (including one Gate House); and
 - 3 x four-bed units.
- 3.3 The development would include a basement with four disabled parking bays, cycle storage and waste and recycling storage facilities.
- 3.4 The site is located on Spedan Close, a private access road off Branch Hill, Hamstead. The site location is shown in Figure 2. The site is immediately surrounded by woodland trees to the north, east and south. The Branch Hill Estate (or 'Spedan Close'), a housing development, is located immediately to the west.

Figure 2: Site Location Plan



4 LOCAL CONTEXT

4.1 LBC Waste Services

- 4.1 LBC currently offers waste collection of the following minimum volumes per dwelling with three bedrooms or less, per week:
 - 120 litres of bin, box or sack volume for general waste or 'refuse'
 - 140 litres of mixed dry recycling; and
 - 23 litres of food waste
- 4.2 There are two residential waste collection services offered in Camden:
 - Kerbside collection generally appropriate for smaller and low-rise residential properties on a street collection schedule,
 - Communal collection generally appropriate for larger and taller residential developments.
- 4.3 The latter applies to the Proposed Development.
- 4.4 LBC's current waste collection, treatment and disposal is management by Veolia. Communal bin serviced dwellings are collected either fortnightly or weekly. As of November 2019, existing properties on Spedan Close are offered a weekly collection service as follows:
 - Communal Recycling: Weekly (Every Thursday);
 - Communal Rubbish: Twice Weekly (Every Tuesday and Friday); and
 - Communal Food: Weekly (Wednesday).
- 4.5 It has therefore been assumed, when designing waste storage facilities at the Proposed Development, that a weekly collection service would be in place.
- 4.6 Bulky waste and household items will be collected by Veolia by arrangement. Any unwanted bulky items, such as furniture, electrical white goods and soft furnishings that are still usable, may be donated to a local charity or to other people through an online community site. It will be essential not to allow bulky waste to be left around the development or in the waste storage areas for prolonged periods. It is likely however, that such waste will be deposited in these areas and it will be necessary for the internal management team to deal with it swiftly. Each occupant should be made aware of their responsibilities with respect to waste in their lease and signs at the storage area should clearly indicate those responsibilities with respect to all wastes, including bulky items.

4.2 Waste Storage and Collection Requirements

4.2.1 In line with BS5906:2005, Part H6 of the Building Regulations (2010) and LBC Technical Guidance, the following measures have been designed into the Proposed Development, which will help maintain a compliant waste strategy when operational:

Part H6 of Building Regulations

- 4.2.2 Waste storage areas have been:
 - Designed and sited so as not to be prejudicial to health and local amenity;
 - Sited so as to be accessible for use by people in the building and of ready access for removal to the collection point;
 - Designed so as to not exceed the 30m horizontal distance from each residential unit to the waste stores (excluding any vertical distance);

- Designed to provide a clear space of 150mm between and around containers to allow their filling and emptying;
- Designed to be of adequate height to allow the lids of containers to be fully opened, with a minimum height of 2m high for enclosures, compounds or storage rooms for communal containers; and
- Designed to provide provision for washing down and draining the floor into a system suitable for receiving a polluted effluent. Gullies will incorporate a trap which maintains a seal, even during prolonged periods of disuse.
- 4.2 In addition, the waste collection point has been located such that it is reasonably accessible to the size of the waste collection vehicles typically used by the waste collection authority.

BS 5906:2005

- All containers for waste, including recyclable material will be easily accessible to both the occupier and waste collector;
- Waste stores will be designed and located in such a way as to limit potential noise disturbance to residents;
- Storage areas for waste and recyclable material will be clearly designated for this use only, by a suitable door or wall sign and, where appropriate, with floor markings;
- Waste storage sites will include areas for instructional signage detailing correct use of the facilities;
- The entrance of the waste stores will be free from steps and projections;
- Ventilation will be provided;
- Waste stores will have lighting; and
- Gullies for wash down facilities will be positioned so as not to be in the track of container trolley wheels.
- 4.2.1 Vehicles will enter and exit the Proposed Development (to leave or re-join the highway) in a forward direction.
- 4.2.2 In order to encourage recycling, information packs will be provided to residents to include full information on available recycling facilities and colour coding will be used for bins of different streams.

LBC Technical Guidance

4.2.3 The LBC Guidance largely reiterates the requirements of the Building Regulations and BS 5906:2005. In addition, the Guidance stipulates that the gradient of any path that bulk bins have to be moved on, should ideally be no more than 1:20, with a width of at least 2 metres, and the surface should be smooth.

5 PROPOSED DEVELOPMENT WASTE ARISINGS

5.1 Estimated Waste Arisings

- 5.1 The estimated waste arisings and storage requirements for each of the three primary waste streams collected by LBC have been calculated using the following criteria set out in LBC's Technical Guidance:
 - No. units x 120L general waste
 - No. units x 140L mixed recycling
 - No. of units x 23L food waste
 - Where more than 3 bedrooms exist, additional volume is allocated at 20L per room for mixed recycling and 20L per room for general waste per week.
- 5.2 As described in Section 2 of this WMP, two bin storage rooms are provided at basement level, one adjacent to lift/stairwell, ensuring that residents do not need to travel more than 30m (horizontal travel distance) to access to the bin stores, as stipulated by LBC's technical guidance and Part H6 of the Building Regulations. The size of each of the bin stores and corresponding number of bins required within each store has been calculated based on the number of residential units utilising each lift / stairwell:
 - East Core Lift/Stairwell: 2 x one-bed units, 2 x two-bed units and 6 x three-bed units; and
 - West Core Lift/Stairwell: 8 x one-bed units, 8 x two-bed units and 8 x three-bed units.
- 5.3 The Proposed Development would give rise to approximately 9,622 L of residential waste per week. The estimated weekly waste arisings, by core, has been calculated and shown in Table 1.

Table 1: Weekly Waste Arisings Methodology

	No. of Units	Estimated Total Weekly Waste Arisings (L)				
Unit Size		Mixed Recycling	Residual Waste	Food Waste	Total	
EAST CORE						
1 Bedroom	2	280	240	46	566	
2 Bedroom	2	280	240	46	566	
3 Bedroom	6	840	720	138	1,698	
TOTAL	10	1,400	1,200	230	2,830	
WEST CORE						
1 Bedroom	8	1,120	960	184	2,264	
2 Bedroom	8	1,120	960	184	2,264	
3 Bedroom	8	1,120	960	184	2,264	
TOTAL	24	3,360	2,880	552	6,792	

5.4 Based on the above figures, the bulk bin requirements in each Bin Store have been calculated. It has been assumed that waste collection at the proposed development would occur weekly.

Table 2: Estimated Bin Requirements

Waste Stream	Total Volume of Weekly Waste Arisings (L)	No. and Size of Bins Required		
EAST CORE BIN STORE				
Mixed Recyclables	1,440	1 x 1,280L Spare: 1 x 1,280L*		
Residual Waste	1,240	1 x 1,280L		

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		Spare: 1 x 1,280L*	
Food Waste	230	1 x 240L	
		Spare: 1 x 240L*	
WEST CORE BIN STORE			
Recyclables	3,380	3 x 1,100L	
		Spare: 1 x 1,100L*	
Residual	2,900	2 x 1,100L and 1 x 660L	
		Spare: 1 x 660L*	
Food	552	2 x 240L	
		Spare: 1 x 240L*	

* Additional provision has been allowed for to ensure that a minimum of one bin per waste stream remains in each store room on waste collection days (when bins have been moved to the waste collection point).

5.5 In addition to the above, an area for bulky waste will be allocated in the basement. In accordance with the LBC Technical Guidance, the bulky waste area will be 7.5m² in floor area to normal storey height. To save space the following materials will be stored alongside household bulky waste: textiles, small WEEE, wires and electrical items i.e. white goods.

5.2 Future Waste Arisings

- 5.1 As stipulated in LBC's CPG and Technical Guidance, Developers should ensure that all storage areas and systems are designed to meet current waste and recycling targets as a minimum, and are sufficiently flexible to meet more ambitious future targets.
- 5.2 Estimates of future waste generation rates vary widely, therefore inflationary waste growth predictions have not been applied to the waste calculation estimates for the Proposed Development. The DEFRA data for the years from 2010 to 2017 show that household waste arisings in England have fluctuated, but have remained relatively stable at around 22,000 kilo tonnes per year¹. The total volume of waste collected has increased marginally each year from 2010-2016 however the waste arisings per person has seen a decrease. Between 2016 and 2017, total waste arisings decreased from 22,770 to 22,437 and the waste arisings per person decrease from 412kg to 403kg. Recycling rates have also seen a small increase from 41.2% in 2010 to 45.2% in 2017.
- 5.3 It is considered that widespread initiatives to reduce waste and improve materials reuse and recycling are likely to reduce long-term production of waste from the Proposed Development. Improvements in data centre security and storage, and increasing reliance on information technology is also likely to lead to a reduction in paper usage in the long-term. Therefore, it is likely that the current waste production and storage requirements will represent a reasonable worst-case scenario, and should therefore form the basis for long-term waste management provisions.

¹ DEFRA, 2018. Local authority collected waste from households from January 2010 to March 2018 - England data

6 WASTE MANAGEMENT AND STORAGE STRATEGY

6.1 Storage Containers

6.1.1 Wheeled bins provided for developments must meet the standards set out in the British Standard for Mobile Waste Containers (BS EN 840) (Ref. 36). Example dimensions of the typical bins outlined within the LBC Technical Guidance are provided below.



6.2 Waste and Recycling Management Strategy

- 6.2.1 The residential waste and recycling strategy can be broken down into distinct stages as described below, from the disposal of waste within each residential unit to its collection and removal from site by LBC and its ultimate disposal.
- 6.2.2 In order to facilitate easy sorting of waste streams for residents, each dwelling will be fitted with a three-compartment waste bin, with each compartment corresponding to the relevant waste stream to be collected by LBC. This will maximise the potential for residents to correctly sort waste within their home.
- 6.2.3 These internal bins will be provided in a dedicated space within each of the dwellings in a location that is inoffensive and does not interfere with the operation of the kitchen.
- 6.2.4 In accordance with LBC's Technical Guidance, each kitchen will feature:
 - two compartments for mixed recycling and general waste of equal volume, each of which must be at least 60L;
 - at least 7L for food waste; and
 - a total minimum capacity of 127L.
- 6.2.5 Residential units will also have space to allow for additional future waste streams, such as additional segregation of dry recyclables, e.g. separate glass or plastic recycling, should these be collected separately by LBC in the future.
- 6.2 Residents will be expected to take all waste arisings from their units to the bin storage rooms located in the basement, accessible via internal corridors and lifts. Two bin storage rooms are provided at basement level, one adjacent to each core. Within the bin store, suitable storage provision has been allocated for each waste stream (MDR, food waste, and residual waste). The size of each of the bin stores and corresponding number of bins for each waste stream has been calculated based on the number of residential units utilising each lift / staircase (see Section 5 above).
- 6.3 As well as the waste receptacles being clearly signed to indicate individual contents, the waste stores should have clear signage on the walls to indicate the bin types and waste streams to be segregated.
- 6.4 The location of the bin stores within the basement and the number of bins is shown in Figure 2 below.
- 6.5 The bin stores will be susceptible to odour issues due to their indoor, basement location. The waste stores will need to be well ventilated and odour suppression techniques could be provided if required. The stores will need to be washed down as part of maintenance procedures for the Proposed Development. A water supply and appropriate drainage will be provided in each store to enable this. The frequency of washdown will need to be considered once the Proposed Development is inhabited. It is also recommended that any static or mobile containers are regularly washed out and an area should be provided to enable this activity to be undertaken within the boundary of the settlement.
- 6.6 The bulk bins will be equipped with closing lids. So long as the lids are kept closed the opportunities for infestations of vermin, flies or other scavengers should be minimised. Any waste spillage will be cleared up as soon as practically possible after discovery by the management body for the development. Should vermin, flies or other scavengers be discovered within the development, appropriate measures will need to be taken to eradicate the problem immediately.



Figure 2: Basement Plan (Bin Stores shown in Red)

- 6.7 On waste collection days the on-site management team will transfer the full Eurobins from the individual waste stores to the refuse collection point, immediately adjacent to Spedan Close, illustrated in Figure 3. One bin per waste stream will remain in each store room on waste collection days to ensure that residents are still able to dispose of their waste in the basement.
- 6.8 Electric tugs will be used in the transferal of waste from the basement level waste store up to the refuse collection point, via use of the car lift. Bins will be specified with a towing kit to facilitate this. The refuse collection point is located within 10m of the refuse vehicle stopping point.
- 6.9 The waste collection point will comprise an uncovered, clearly marked 'bay'. The area is large enough to accommodate the maximum number of bins that would be collected on any day, noting that it is assumed that recyclables, residual waste and food waste are all collected on separate days of the week. The space in the collection area is sufficient to enable operatives to return emptied bins to a position that does not obstruct the manoeuvring of those containers that are yet to be emptied.
- 6.10 The LBC's waste collection team will be able to access the Proposed Development in a forward gear via the public highway, off Branch Hill. Following collection of the waste, the vehicles will utilised the turning circle at the front of the property, enabling them to depart in a forward direction as well.
- 6.11 Once the LBC's refuse collection teams have emptied the bins the internal management team will return the empty bins to the relevant bin stores.





7 SUMMARY

- 7.1 The Development will be sustainable with high standards of environmental performance. As such, due consideration has been given to waste generated by the Development during its operation. Waste management within the Development has the following aims:
 - To contribute towards achieving current and long-term government, GLA, NLWA and LBC targets for waste minimisation, re-use and recycling;
 - To allow that all legal requirements for handling and management of waste during operation of the Development are complied with; and
 - To provide tenants with convenient, clean and efficient waste management systems that enhance the operation of the buildings and promote high levels of recycling.
- 7.2 Once operational, the Proposed Development is anticipated to produce approximately 9,622 litres (L) of waste per week. Residential waste storage allows for a weekly storage capacity for recyclable material, food and residual (i.e. non-recyclable) waste. Sufficient provision is allocated for the storage of bulky waste items (7m²), which will be managed by the internal management team.
- 7.3 The internal management team will be responsible for moving the bulk bins from the basement bin stores to the collection point at ground level, on the side of Spedan Close.
- 7.4 All waste infrastructure introduced to the Development will comply with Building Regulations Part H6 and BS 5906:2005. The Development has also been designed to be compliant with all relevant waste management policy.