s73 Operational Waste and Recycling Management Note

Spacehouse Development
London Borough of Camden (LBC)

SLQR Trustee No 1 Limited and SLQR Trustee No 2 Limited as Co Trustees for SLQR Unit Trust No 3

05 March 2021

Quality information

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Revision History

Revision	Revision date	Details	Name	Position
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Table of Contents

Figures

Tables

1. Introduction

1.1 AECOM Limited ('AECOM') has been commissioned by SLQR Trustee No 1 Limited and SLQR Trustee No 2 Limited as Co Trustees for SLQR Unit Trust No 3 ('Applicant') to prepare an Operational Waste and Recycling Management Note ('Note') in support of the section 73 and section 19 application for the approved Space House Development ('Approved Development') planning references (2019/2773/P and 2019/2790/L) located within the administrative boundary of London Borough of Camden (LBC).

1.2 The objective of this Note is to review the revisions proposed as part of the s73 application and to advice on the changes (if required) to the management of waste and recycling material arisings from the operational element of the Approved Development. It should be noted that AECOM prepared an Operational Waste and Recycling Management Strategy ('Strategy') in support of the planning application for the Approved Development (PA:2019/2773/P) in 2019, therefore, this Note should be read in conjunction with the Strategy and is an addendum to the approved Strategy, dated 26 November 2019.

1.3 The principal aim of this Note is to demonstrate how sustainable methods for waste and recycling management have been considered for the operational phase of the Approved Development, taking into account the proposed revisions. Furthermore, with regards to waste and recycling management within the Approved Development, this Note has the following aims:

- To contribute towards achieving current and long-term national, Greater London Authority (GLA), North London Waste Authority (NLWA) and LBC's targets for waste minimisation, recycling and re-use;
- To comply with all applicable legal requirements for handling operational waste;
- To achieve high standards of waste management performance, through giving due consideration to the waste generated during operation of the Proposed Development; and
- To provide a convenient, clean and efficient waste management strategy that enhances the operation of the Proposed Development and promotes recycling.

1.4 This Note provides a review of the requirements placed upon the proposed revisions to the Approved Development under legislation and implemented policy at all levels of government (i.e. national (England), regional (GLA) and local (NLWA) and LBC. Consideration has also been given to the requirements included in local standards, local planning policy and guidance documents (i.e. LBC Planning Guidance (CPG1) – "Design Storage and Collection of Recycling and Waste" (Ref 1), British Standard Institute (BSI), Waste Management in Buildings, Code of Practice (BS 5906:2005) (Ref 2) and Camden Planning Guidance (CPG) Transport (Ref 3) so as to comply with relevant objectives and targets.

1.5 This Note is written by AECOM using information provided by Squire and Partners ('Architect') and Caneparo Associates ('Transport Consultant').

2. Legislation, Planning Policy and Guidance

2.1 A summary of national, regional and local legislations, planning policies and guidance relevant to the proposed revisions to the Approved Development is provided in this section. It should be noted that this summary identifies those elements of the legislation, policy or guidance applicable to waste management within the Approved Development and does not provide a comprehensive overview of the relevant legislation or policy as a whole.

National Waste Legislation

2.2 Waste legislation relevant to the Proposed Development includes:

- The Animal By-Products (England) Regulations 2009 (as amended 2015) (Ref 4);
- Clean Neighbourhoods and Environment Act 2005 (as amended 2015) (Ref 5);
- Control of Pollution Act (COPA) 1974 (as amended 1989) (Ref 6);
- The Controlled Waste (England and Wales) Regulations 2012 (as amended 2012) (Ref 7);
- The Environment Act 1995 (Ref 8);
- Environmental Protection Act 1990 (EPA) (Ref 9);
- The Landfill Tax Regulations 1996 (as amended 2017) (Ref 10);
- The List of Wastes (England) Regulations (as amended 2005) (Ref 11);
- The Pollution Prevention and Control (Fees) (Miscellaneous Amendments) Regulations 2017 (Ref 12);
- The Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (as amended 2017) (Ref 13);
- The Hazardous Waste Regulations 2005 (as amended 2016) (Ref 14);
- The Waste Batteries and Accumulators Regulations 2009 (as amended 2015) (Ref 15);
- The Waste Electrical and Electronic Equipment (WEEE) Regulations 2015 (Ref 16); and
- The Waste Management (England and Wale) Regulations 2011 (Ref 17).

National, Regional and Local Planning Policy

2.3 The national, regional and local planning policies in Table 1 of this Note contain information applicable to the Proposed Development.

Table 1 National, Regional and Local Planning Policy

Planning Policy Document	Date	Policy	Detail
National			
A Green Future: Our 25 Year Plan to Improve the Environment (Ref 18)	2018	Chapter 4: Increasing resource efficiency and reducing pollution and waste	• Make sure that resources are used more efficiently and kept in use for longer to minimise waste and reduce its environmental impacts by promoting reuse, remanufacturing and recycling. • Work towards eliminating all avoidable waste by 2050 and all avoidable plastic waste by end of 2025 .
Our Waste, Our Resources: A Strategy for England (Ref 19)	2018	1.1.1 2.3.1 3.1.1	• Extended Producer Responsibility - The Extended Producer Responsibility (EPR) is “a policy approach through which a producer’s responsibility for a product is extended to the post-use stage. This incentivises producers to

			design their products to make it easier for them to be reused, dismantled and/or recycled at end of life". • Deposit Return Scheme - In a Deposit Return Scheme (DRS), a small deposit will be added to the price of a drink container brought to a store. Once the container has been used, the consumer will dispose of it in a reverse vending machine and the deposit will be returned to the consumer. • Consistent Collections - Subject to consultation, legislation enforcing the government to "specify a core set of materials to be collected by all local authorities and waste operators" will be introduced. It is envisioned that specifying a consistent set of dry recyclable materials to be collected from all households and businesses will improve England's recycling rate, (subject to consultation) it will include mandatory separate food waste collections. • At the current time these policy instruments are out for consultation and (subject to proposals) will be rolled out from 2023.
Regional			
The London Plan (Ref 20)	2021	Policy SI 7 Reducing Waste and Supporting the Circular Economy	• This policy states that waste reduction and reduction in the quantity of waste going for disposal from London can be achieved by promoting circular economy i.e. – By encouraging the reuse of material and by using fewer resources in the production and distribution of products; – By ensuring that zero biodegradable or recyclable waste is sent to landfill by 2026; – By meeting the set recycling targets (i.e. 65% for municipal waste by 2030 and 95% for construction and demolition waste); and – By designing developments that would provide adequate, flexible and easily accessible storage space to support collection of dry recyclables (at least card, paper, mixed plastics, metals, glass) and food.
		Policy T7 Deliveries, Servicing and Construction	• This policy states that development proposals must consider the use of rail/water for the transportation of material with increased levels of direct vision on waste. • Development plans and development proposals should facilitate sustainable freight movement by rail, waterways and road. • At large developments, facilities to enable micro-consolidation should be provided, with management arrangements set out in Delivery and Servicing Plans.
London Environment Strategy (Ref 21)	2018	Policy 7.2.2	• Targets a 65% recycling rate for municipal waste (this is broken down into a 50% recycling target for household waste and a 75% target for business waste by 2030) and specifies that no biodegradable or recyclable waste will be sent to landfill by 2026.
Local			
North London Joint Waste Strategy (Ref 22)	2009	Objectives	• To minimise the amount of municipal wastes arising; • To maximise recycling and composting rates; • To reduce greenhouse gases by disposing of less organic waste in landfill sites; • To co-ordinate and continuously improve municipal wastes minimisation and management policies in North London;

			• To manage municipal wastes in the most environmentally benign and economically efficient ways possible through the provision and co-ordination of appropriate wastes management facilities and services; • To ensure that services and information are fully accessible to all members of the Community; • To maximise all opportunities for local regeneration; and • To ensure an equitable distribution of costs, so that those who produce or manage the waste pay for it
Draft North London Waste Plan Proposed Submission (Ref 23)	2019	Draft SO 1	• States "to support the movement of North London's waste as far up the waste hierarchy as practicable, to ensure environmental and economic benefits are maximised by utilising waste as a resource".
		Draft SO 7	• States "to support the use of sustainable forms of transport and minimise the impacts of waste movements including on climate change".
Camden Local Plan (Ref 24)	2017	CC5 Waste	• States that "The Council will seek to make Camden a low waste borough. We will: – aim 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 household waste recycled/composted by 2020 and aspiring to achieve 60% by 2031; – deal with North London's waste by working with our partner boroughs in North London to produce a Waste Plan, which will ensure that sufficient land is allocated to manage the amount of waste apportioned to the area in the London Plan; – safeguard Camden's existing waste site at Regis Road unless a suitable compensatory waste site is provided that replaces the maximum throughput achievable at the existing site; and – make sure that developments include facilities for the storage and collection of waste and recycling."

Local Planning Guidance

Camden Planning Guidance (CPG) – "Design" (2021)

2.4 The aim of Camden Planning Guidance (CPG) – Design (Ref 25) is to promote appropriate storage and collection arrangements for all types of wastes (e.g. recyclables, food waste, general waste and bulky waste) within all new developments in LBC. It seeks to assist those involved in the design and management of buildings to best provide for the storage and transfer of segregated materials to maximise the type and amount of waste that can be sent for recycling in order to meet LBC's ambitious waste recycling targets.

Waste storage and arrangements for residential and commercial units (Supporting document for planning guidance CPG Design - Storage and collection of recycling and waste)

2.5 The storage and arrangements recycling and waste material arising from the residential and commercial units supports guidance in CPG - Design. It includes further details of the design measures required for

commercial developments in order to futureproof developments. The guidance advises that planning for all waste and storage should:

- Have adequate space is designed for the containment, storage and transfer of all materials e.g. recyclables, food waste, general waste and bulky waste;
- Allow for reasonable changes to collection services and transfer or activities in the future;
- Promote safe storage locations and provide systems for waste transfer that are accessible for all users and collectors, and minimise nuisance to occupiers and neighbours and their amenity space, e.g. noise, obstruction, odours, pests, etc.;
- Include accessible waste transfer activities that are well designed;
- Allow for waste storage containers (bins), which have designated indoor or external storage areas;
- Include facilities sensitively designed/located, especially in conservation areas/or listed buildings; and
- Allow for plans to be documented within a waste strategy and design and access statement to meet planning waste conditions for approval .

Camden Planning Guidance (CPG) – "Transport" (2021)

2.6 The aim of Camden Planning Guidance (CPG) – Transport is to make sure that all transport measures that need to be secured and /or provided before the development comes into use are put into place.

2.7 Paragraph 4.51 of the guidance document refers to developments that have demonstrated a significant movement of goods or materials by road in the Transport Assessment. It states that these developments will be expected to accommodate goods and service vehicles on-site, this will also include waste collection vehicles should they require on-sire access.

3. The proposed revisions to the Approved Development

3.1 Due to the revisions proposed to the Approved Development, the total Net Internal Area (NIA) for the commercial spaces (including retail spaces, restaurant spaces(E use class), office spaces (E use class) and flexible office and sui generis spaces (E use class)) will decrease from 24,308 m^2 to approximately 23,729.2 m^2(NIA)[1].

3.2 Table 2 of this Note highlights the changes proposed for the Approved Development.

Table 2 Commercial Area Mix

Land Use	Approved 2019	Proposed Revisions	Change
	NIA (m^2)	NIA (m^2)	NIA (m^2)
Retail and Restaurant *	1,188	948.6	- 239.4
Office	21,406	21,335.3	- 70.7
Flexible Office and Sui Generis**	1,714	1,446.6	- 267.4
Total	**24,308**	**23,730.5**	**- 577.5**

**A 30:70 split has been assumed between the retail and restaurant spaces, in line with the methodology used in the approved scheme*

[1] Please refer to pdf "18077-210304-S73-NIA for the area schedule attached as Appendix A of this Note

4. Methodology

4.1 The Methodology used to estimate the quantities of waste and recycling material arising and the subsequent storage requirement is in line with the methodology used within the Approved Strategy, that is provided in Table 3 of this Note.

Table 3 Commercial Waste and Recycling Arisings Methodology

Land Use Class	Methodology	Guidance Used	Waste Stream Split
Retail	10 L per m^2 of Sales Floor Area (SFA)* per week	BS 5906: 2005	Mixed Dry Recyclable (MDR) : Residual 50 : 50
Restaurant	75 L per Cover per week with 1 Cover calculated as 1 per 3 m^2 of NIA	BS 5906: 2005	MDR : Food : Residual 50 : 30 : 20
Office Space /Facilities Management**	50 L per Employee	BS 5906: 2005	MDR : Residual 50 : 50
Flexible Office and Sui Generis***	50 L per Employee	Bespoke AECOM	MDR : Food : Residual : Glass 30 : 10 : 30 : 30

**SFA is calculated as 2/3 of NIA (m^2).*

*** Information on the number of employees and the number of facilities management staff has been provided by the Architect.*

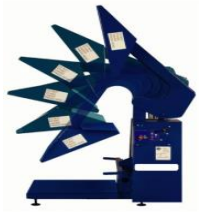
****In line with the Approved Waste Strategy, the waste generated from the Sui Generis area has assumed this space to be an office space. In line with the Approved Waste Strategy all retail and restaurant units, facilities management and sui generis areas a seven-day working week has been assumed, whereas for office space a five-day working week has been assumed.*

5. Operational Waste and Recycling Management

Waste Arisings

5.1 In line with the approach put forward within the approved Waste Strategy and to optimise the space and size of the bin store, lever arm in-bin compactors will be installed (examples provided in Table 4 of this Note). These compaction units will allow compaction of Mixed Dry Recyclable (MDR) at 2:1 and Residual waste at 3:1, however, Food and Glass waste will not be compacted.

Table 4 Example Lever Arm in-bin compactor

PAKAWASTE LF1100 Wheelie Bin Compactor	
	Height (m): 2.12
	Width (m): 1.16
	Depth (m): 1.15
	Pressing Force: Up to 3.5 tonnes
	Noise Level: 72 Decibels
	Cycle Time: 20 seconds
Tony Team TT1100E Bin Compactors	
	Height (m): 2.15
	Width (m): 1.66
	Depth (m): 1.54
	Pressing Force: 2.3 tonnes
	Cycle Time: 31 seconds
PAKAWASTE LF1100 Single Phase	
	Height (m): 1.905
	Width (m): 1.43
	Depth (m): 14.8
	Pressing Force: 2 tonnes
	Noise Level: less than 75 Decibels
Easi Recycling 1100L Bin Packer	
	Height (m): 2.105
	Width (m): 0.96
	Depth (m): 1.3
	Pressing Force: 4 tonnes
Please note that there are a range of different compaction units available on the market which could be used.	

5.2 Based on these compaction ratios and the methodology provided in Table 3 of this Note, the estimated waste and recycling arisings (based on a twice weekly collection frequency) due to the proposed revisions to the approved Development are provided in Table 5 of this Note. (For detailed waste calculations please see Appendix B of this Note).

Table 5 Compacted Waste and Recycling Arisings based on Twice Weekly Collection Frequency

Land Use Class	NIA (m^2)	MDR (L)	Food (L)	Glass (L)	Residual (L)	Total (L)
All	23,730.5	23,388	3,371.5	1,552	14,640.5	42,934

In line with the approved Waste Strategy, a 30:70 split has been assumed between retail and restaurant space.
It should also be noted that the number of employees working in the office area and FM have been provided by the architect.

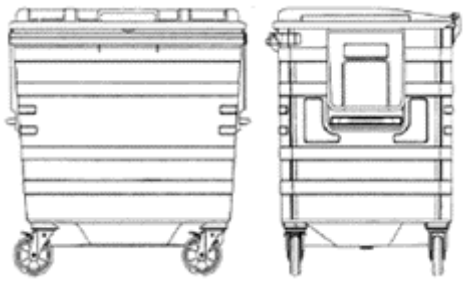
Storage Containers

5.3 The storage requirements for waste arising from the operational phase of the Proposed Development is based on the following bins types:

- Usage of 1,100 L Euro Bins for the storage of MDR;
- Usage of 1,100 L Euro Bins for the storage for Residual Waste;
- Usage of 240 L Wheelie Bins for the storage of Food Waste; and
- Usage of 240 L Wheelie Bins for the storage of Glass Waste

5.4 Examples of both 1,100 L Euro and 240 L Wheelie Bins are provided in Table 6 of this Note. These will be colour coded depending on the waste stream.

Table 6 LBC Standard Bin Dimensions

240 L	
	Capacity (L): 240
	Height (mm): 1,070*
	Length (mm): 740*
	Width (mm): 535*
1,100 L	
	Capacity (L): 1,100
	Height (mm): 1,410*
	Length (mm): 1,265*
	Width (mm): 980*
**Please note that dimensions vary between manufacturers*	

Storage Requirements

5.5 Based on the waste and recycling arisings provided in Table 5 of this Note, the subsequent storage requirements are provided in Table 7 of this Note.

Table 7 Storage Requirements (based on twice weekly collection frequency)

Land Use Class	NIA (m^2)	MDR	Food	Glass	Residual	Total
All	23,725.5	22 × 1,100 L	10 × 240 L	5 × 240 L	14 × 1,100 L	36 × 1,100 L 15 × 240 L

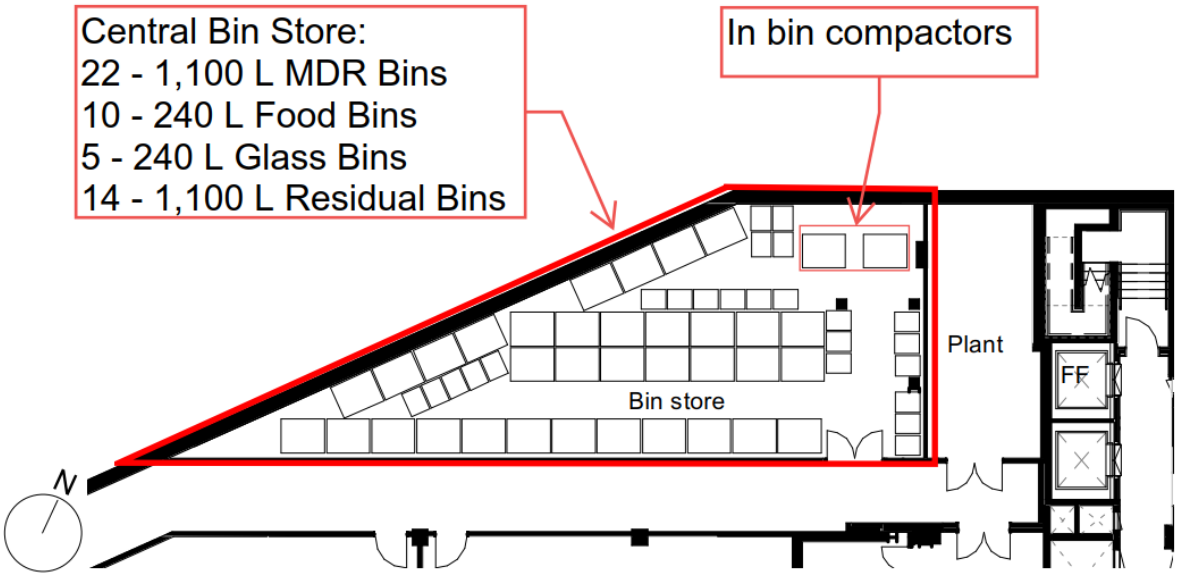
In line with the approved Waste Strategy, a 30:70 split has been assumed between retail and restaurant space. It should also be noted that the number of employees working in the office area and FM have been provided by the architect.

Management

5.6 Similar to the Approved Strategy, the central bin store will be located on basement (level 2) of the Approved Development and will house two in-bin level arm compactors allowing compaction ratios of 2:1 for MDR and 3:1 for Residual waste; whereas Food and Glass waste will not be compacted.

5.7 In line with the Health and Safety (H&S) requirements for manual handling, the size of the Food and Glass bins have been changed to 240 L, therefore changing the number of the Food and Glass bins compared to the Approved Strategy. The updated layout and the location of the central bin store is provided in Figure 1 of this Note)

Figure 1 Central Bin Store

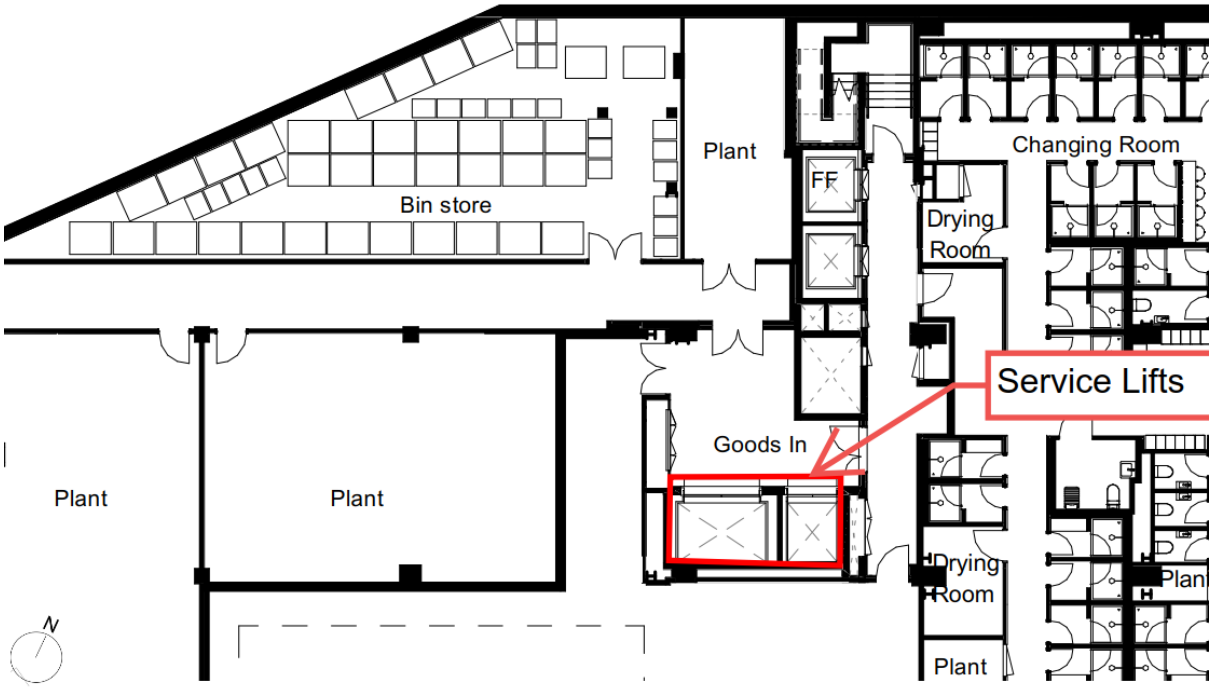


Please note that this Figure is not drawn to scale

5.8 As proposed within the Approved Strategy, the commercial units have been designed to provide sufficient space within their curtilage to hold waste and recycling in small bins. On daily basis (or as agreed), the building management team will collect the waste and recycling material from all commercial units within the Approved Development and transfer this to the central bin store via service lifts located in both buildings, where it will be compacted (only MDR and Residual waste) and stored in separate bins (i.e. MDR, Food, Glass and Residual waste bins). The central bin store has been designed in line with the Approved Strategy and will provide sufficient capacity for holding bins based on a twice weekly collection frequency.

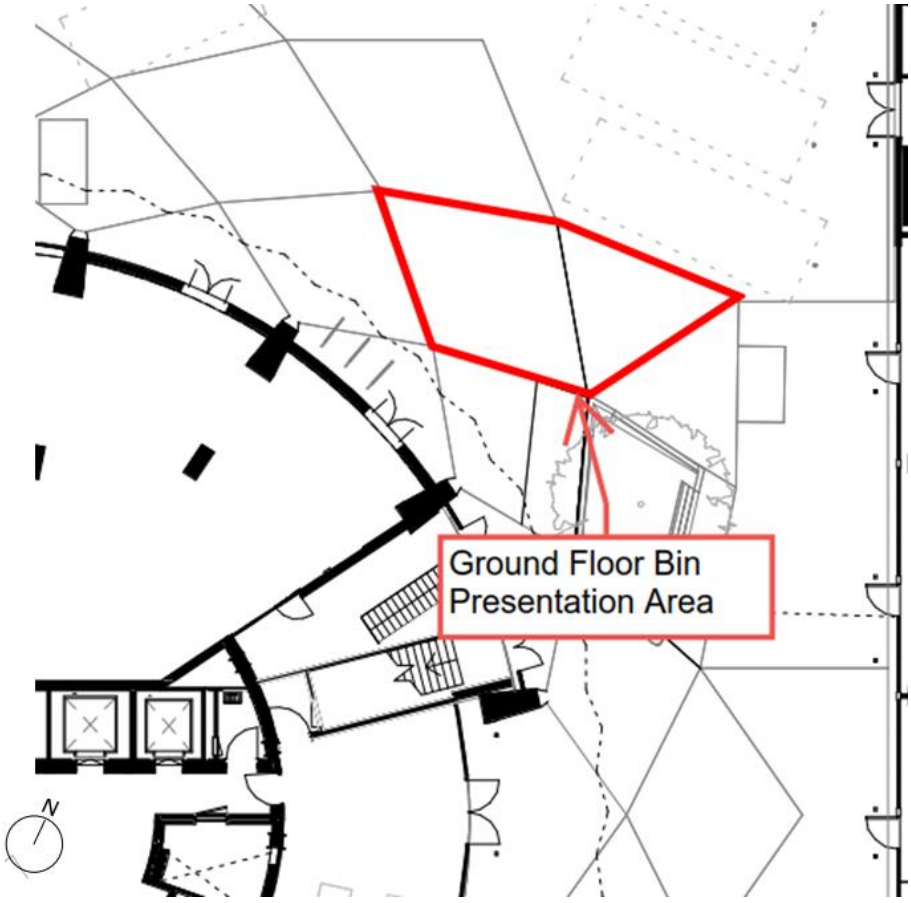
5.9 As proposed within the approved Strategy, the building management team will transfer the bins via service lifts (location provided in Figure 2 of this Note) for the stream scheduled to be collected on that date to the bin presentation area i.e. located on the Ground Floor Level (location of the bin presentation area is provided in Figure 3 of this Note).

Figure 2 Location of Service Lifts



Please note that this Figure is not drawn to scale

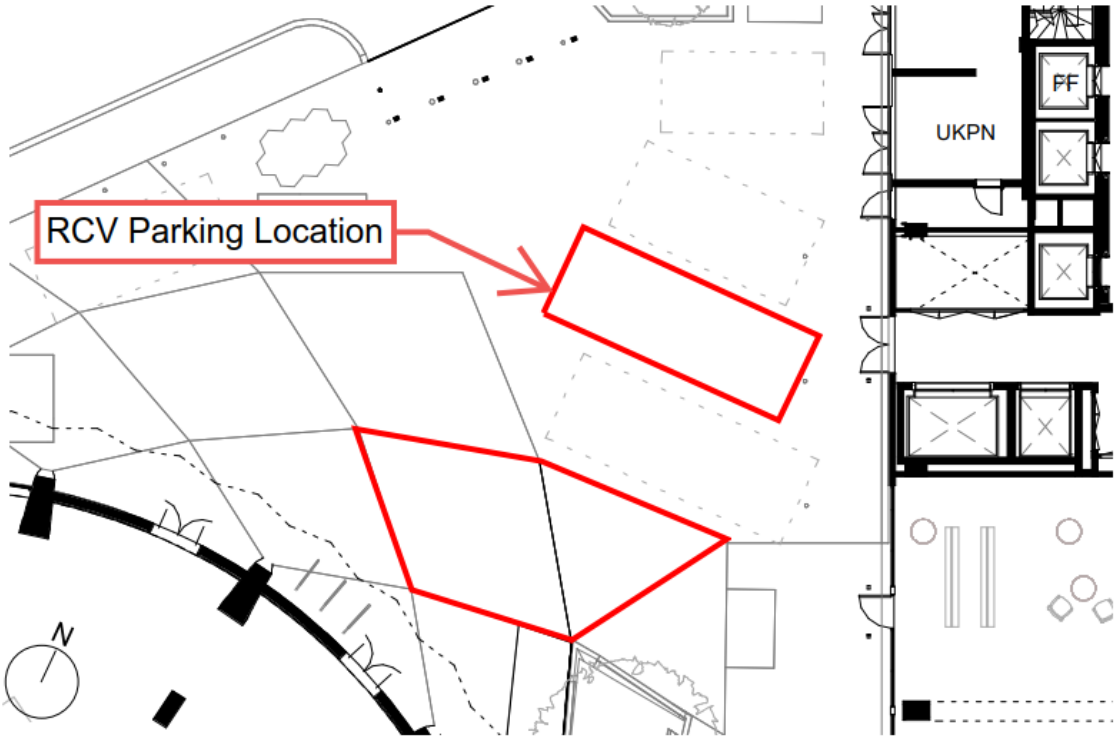
Figure 3 Ground Floor Presentation Area



Please note that this Figure is not drawn to scale

5.10 The collection arrangements will be in line with the Approved Waste Strategy. At the time of collection, the collection operatives will wheel the bins from the bin presentation area to the collection point (location provided in Figure 4 of this Note) that is located within 10 m distance, where the RCV will be parked. After emptying of the bins, the building management team will drag these bins back to central bin store.

Figure 4 RCV Parking Location



Please note that this Figure is not drawn to scale

Maintenance and Fit-Out

5.11 Arrangements proposed for the maintenance and fit out activities for the commercial tenants will be in line with the Approved Waste Strategy.

Unique Waste

5.12 As proposed within the Approved Waste Strategy, the central bin store will provide space to store this type of waste along with other waste and separate arrangements will be made for the safe disposal of these waste streams, as covered by the Hazardous Waste (Amendment) Regulations 2016 and WEEE Regulations 2015. All waste management will have to comply with Environmental Protection Act 1990 and The Waste (England and Wales) (Amendment) Regulations 2014.

6. Storage and Collection Provision

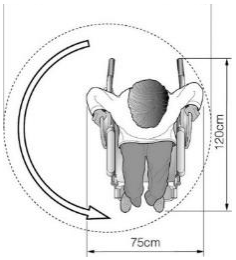
6.1 As proposed within the Approved Strategy, the Approved Development will comply with the guidance set out in:

- BS 5906:2005;
- Part H6 of the Building Regulations; and
- LBC: Storage and collection of recycling and waste – CPG1 Design

6.2 Table 8 of this Note summarises the key guidance followed.

Table 8 Guidance Applicable to the Proposed Development

Topic	Guidance
Location	• In accordance with BS EN 840 (Ref 26) all recycling and waste material containers within the Proposed Development will be stored under cover in specially designed recycling and waste material storage rooms. • Waste and recycling bin storage facilities will not block any utility service points. • Bins pose a hazard for pedestrians, especially for blind or partially sighted people and those who use wheelchairs or pushchairs. Bins will not be left unsecured or positioned on the public footway. • The doors of bin stores will not open over the public footway or road. Particular considerations apply to listed buildings or buildings in a conservation area. • Bin storage areas will not obstruct sight lines for pedestrians, drivers and cyclists. • Buildings will have an off-street waste collection area at ground level.
Convenience	• The occupier's staff responsible for transporting waste to the bin store (e.g. building management team) will not have to carry recycling and waste material more than 30 m from their individual units to the bin storage areas. Where this is not possible, trolleys/cages will be used for the transportation of waste within the Proposed Development. • Waste collection crews and caretakers will not have to: – Carry waste sacks more than 15m; – Carry bins or move wheeled bins (up to 360 L) more than 10m. – Manually navigate flights or steps or steep slopes or marked changes in level. – Move larger wheeled bins more than 10m; or – Be required to cross a main road, dual road or cycle route and footpath in order to deposit or transfer waste.
Screening and Covering	• Recycling and waste bins will be stored inside. • Internal built storage areas will conform to BS 5906:2005.
Signage	• Waste and recycling bin storage areas will include instructional signage detailing correct use of the facilities; • Waste and recycling bin storage areas will be suitably lit, clearly designated by a suitable door or wall sign and, where appropriate, with floor markings. • Colour coding will be used for bins of different streams.
Accessibility	• Waste and recycling bin storage will be designed to be accessible for disabled and other members of the public as set out by the Disability and Discrimination Act (DDA), as specified in BS 8300:2009 – The design of buildings and their approached to meet the full range of needs of all people (Ref 27). An example wheelchair turning circle has been provided in Figure 5 of this Note. • The entrance of the waste and recycling bin storage area will be free from steps and projections.

Topic	Guidance
	• Waste and recycling bin storage areas will be large enough to allow gangway access to all containers without needing to rearrange other bins within the space. **Figure 5 Example Wheelchair Turning Circle** 
Access Paths	• For BS EN 840 Euro Bins or similar sized wheeled bins, the path between the waste and recycling bin storage area and vehicle access areas will: – Be free of steps or kerbs (a dropped kerb may be required); – Have a solid foundation; – Be rendered with a smooth continuous finish (i.e. no cobbled surfaces); – Be flat, or slope down from the storage area with a maximum gradient of 1:20; and – Have a minimum width of 2m.
Vehicle Access	• Vehicles will enter and exit the Proposed Development (to leave or re-join the highway) in a forward direction; and • The roadway that the vehicles park on will be able to accommodate the weight and size of a 26-tonne vehicle.
Materials and Finishing	• The floor and walls of bin stores will be constructed and finished in materials that are impervious and easy to clean. • Where appropriate, a trapped gully and water supply will be provided to make cleaning easier. • To allow Euro Bins or similar wheeled bins to pass easily through the doors of the bin store without damaging the doors, the doors will have door retainers on them.
Safety and Anti-Social Behaviour	• Poor location and poor design can lead to communal waste and recycling bin storage areas attracting anti-social behaviour or being perceived as unsafe. • Layout, land use, parking, landscaping, streetscape, boundary treatments, CCTV, lighting, enforcement and public activity has been considered. • The entrance of the waste and recycling bin storage area will be free from steps and projections.
Locks	• Waste and recycling bin storage areas will be secure and only accessible via keypad/digital lock, electronic fobs or standard Fire Brigade (FB) 1, FB 2, or FB 4 mortice locks. • Internal unlocking mechanisms will be installed in all waste and recycling bin storage and chambers where doors self-lock.
Fire Safety	• Fire safety guidance states that all wheeled bins will be 6m or further from a building, unless the bins are in a purpose-built brick bin store which has a roof and fore doors. BS 9999:2008 – Code of practice for fire safety in the design, management and use of buildings including DDA compliance has been considered (Ref 28); • The walls and roofs of all waste and recycling bin store will be formed of non-combustible, robust, secure and impervious material, and have a fire resistance of one hour when tested in accordance with BS 476-21 (Ref 29) whilst the door of the stores will be made of steel or have a fire resistance of 60 minutes when tested in accordance with BS 476-22 (Ref 30); • Caged or screened bins will be locked if in a public accessed area and have a lid and wheel locking mechanism; • Consideration will be taken to align with a development of fire strategy and plans and review emergency access and egress routes; • Fire plan routes will be checked periodically so that there is no conflict between waste and public safety; • Waste and recycling storage bins and sacks will not be left in entrances, atriums, gangways, shared communal areas or balconies; and • Any internal waste and recycling bin storage areas adjacent to a fire escape route will be fitted with fire doors, automatic fire detection and a sprinkler system and comply with the Regulatory Reform (Fire Safety) Order 2005 (Ref 31).
Ventilation and Lighting	• The internal waste and recycling bin stores will have lighting and good ventilation to reduce complaints of smells and odours;

Topic	Guidance
	• The waste and recycling bin stores are to be enclosed in a roofed building and adequate ventilation will be provided. Permanent ventilators will be provided giving a total ventilation area of not less than 0.2 sq m; • The ventilation will be fly- and vermin-proofed and near to either the roof or floor; • Electrical lighting will consist of sealed bulkhead fittings with housings rated to IP65 in BS EN 60529:1992 (Ref 32); and • Luminaires will be low energy light fitting or low energy lamp bulbs, controlled by proximity detection or a time delay button to prevent lights being left on.
Maintenance	• Gullies for wash down facilities will be positioned so as not to be in the track of container trolley wheels. The gullies will incorporate a trap, which maintains a seal, even during prolonged periods of disuse.

7. Conclusion

7.1 In keeping with national, regional and local (NLWA and LBC) policy, this Note demonstrates how the proposed revisions to the Approved Development will continue to ensure that sustainable waste and recycling management methods are promoted at the site. The Note displays the prospective space requirements for weekly recycling and waste management for the commercial units and explores the segregation of MDR, Food, and Residual waste.

7.2 It is to be noted that the proposed revisions to the Approved Development will result in changes to the waste and recycling material arisings and the subsequent storage requirements. However, the central bin store proposed will have sufficient space to cater for this change. Therefore, the proposed revisions to the Approved Development will not significantly influence the management of waste and recycling materials arising from the operational phase of the Approved Development. This Note confirms that these arrangements are in line with the national, regional and local requirements.

7.3 Alongside striving towards local policy objectives, this Note can help achieve wider district goals such as reaching recycling targets (65% of municipal waste) alongside providing adequate, flexible, and easily accessible bin store to support recyclables and food waste as set by the London Plan – 2021.

8. Reference

Ref 1. London Borough of Camden (LBC) (2021) Waste storage and arrangements for residential and commercial units - Supporting document for planning guidance CPG Design - Storage and collection of recycling and waste

Ref 2. British Standards Institute (BSI), (2005); BS 5906:2005, Waste Management in Buildings – Code of Practice

Ref 3. LBC, (2021); Planning Guidance Document – Transport

Ref 4. Her Majesty Statutory Office (HMSO), (2011); The Animal By-Products (Enforcement) Regulations 2011.

Ref 5. HMSO, (2015); Clean Neighbourhoods and Environment Act 2015.

Ref 6. HMSO, (1989); Control of Pollution Act 1989.

Ref 7. HMSO, (2012); The Controlled Waste (England and Wales) Regulations 2012.

Ref 8. HMSO, (1995); Environment Act 1995.

Ref 9. HMSO, (1990); Environmental Protection Act 1990.

Ref 10. HMSO, (1996); The Landfill Tax Regulations 1996.

Ref 11. HMSO, (2005); The List of Wastes (England) Regulations 2005.

Ref 12. HMSO, (2017); The Pollution Prevention and Control (Fees) (Miscellaneous Amendments) Regulations.

Ref 13. HMSO, (2007); The Producer Responsibility Obligations (Packaging Waste) Regulations 2007.

Ref 14. HMSO, (2005); The Hazardous Waste Regulations 2005.

Ref 15. HMSO, (2009); The Waste Batteries and Accumulators Regulations 2009.

Ref 16. HMSO, (2013); The Waste Electrical and Electronic Equipment (WEEE) 2013

Ref 17. HMSO, (2011); The Waste (England and Wales) Regulations

Ref 18. HMSO, (2018); A Green Future: Our 25 Year Plan to Improve the Environment.

Ref 19. HMSO, (2018); Our Waste, Our Resources: A Strategy for England.

Ref 20. GLA (2021); London Plan, Spatial Development Strategy for Greater London.

Ref 21. GLA, (2018); London Environment Strategy.

Ref 22. NLWA, (2009); Joint Waste Strategy.

Ref 23. North London Waste Authority (NLWA), (2019); North London Waste Plan Proposed Submission (Regulation 19).

Ref 24. LBC, (2017); Local Plan.

Ref 25. LBC, (2021); Planning Guidance Document – Design.

Ref 26. BSI, (2004); BS EN 840 Mobile Waste Containers.

Ref 27. BSI, (2009); BS 8300:2009 Design of buildings and their approaches to meet the needs of disabled people.

Ref 28. BSI, (2008); BS 9999:2008 Code of practices for fire safety in the design, management and use of buildings.

Ref 29. BSI, (1987); BS 476-21 Fire tests on building materials and structures: Part 21.

Ref 30. BSI, (1987); BS 476-22 Fire tests on building materials and structures: Part 22.

Ref 31. HMSO, (2005); The Regulatory Reform (Fire Safety) Order 2005.

Ref 32. BSI, (1992); BS EN 60529:1992 Specification for degrees of protection provided by enclosures (IP code).

Appendix A Commercial Unit Mix

SQUIRE & PARTNERS

18077-Space House

Schedule of Net Internal Areas Date: 04/03/21
Section 73 / 19 Application

Floor	Commercial		Office		Flexible commercial / Sui Generis event space	
	m ²	sq ft	m ²	sq ft	m ²	sq ft
B2					1,183.4	12,738
B1	266.9	2,873			263.2	2,833
Tower (inc bridge)						
Ground (Tower)	213.5	2,298				
01 (Tower inc the bridge)			1,028.0	11,065		
02 (Tower inc the bridge)			1,056.1	11,368		
03 (Tower)			954.9	10,279		
04 (Tower)			954.9	10,279		
05 (Tower)			954.9	10,279		
06 (Tower)			954.9	10,279		
07 (Tower)			954.9	10,279		
08 (Tower)			954.9	10,279		
09 (Tower)			954.9	10,279		
10 (Tower)			954.9	10,279		
11 (Tower)			954.9	10,279		
12 (Tower)			954.9	10,279		
13 (Tower)			954.9	10,279		
14 (Tower)			954.9	10,279		
15 (Tower)			954.9	10,279		
16 (Tower) Prop. Extension			954.1	10,270		
17 (Tower) Prop. Extension			450.6	4,850		
Kingsway						
Ground (KW)	468.2	5,040				
01 (KW)			743.4	8,002		
02(KW)			746.2	8,032		
03 (KW)			746.2	8,032		
04 (KW)			746.7	8,037		
05 (KW)			746.7	8,037		
06 (KW)			746.7	8,037		
07 (KW)			746.7	8,037		
08 (KW) Prop. Extension			210.2	2,263		

							Totals	
Subtotal	**948.6**	10,211	**21,335.3**	229,653	**1,446.6**	15,571	**23,730.5**	255,435

Areas are aproximate only and subject to change through planning, design and development of the proposal.
Areas have been measured according to the RICS Code of measuring practice, 6th edition
* Areas exclude thermal lining to existing façade
* Areas exclude reception areas in both the tower and kingsway buildings - these figures can be supplied seperately
* Areas include WC blocks to Sui Generis at B1 and B2 levels

Appendix B Detailed Waste and Recycling Management Calculations

Weekly

Land Use	NIA	WC	MDR	FOOD	GLASS	RESIDUAL	TOTAL
Retail (A1)	284.58	190	950			950	1,900
Retail (A3)	664.02	222	8,325	4,995		3,330	16,650
Office (B1)	21,339	2,633	65,825			65,825	131,650
Flexible B1/B2/Sui Gen	1446.6	181	2,715	905	2,715	2,715	9,050
FM		30	750			750	1,500
Total			78,565	5,900	2,715	73,570	160,750
A 30:70 split has been assumed for A1 and A3 Office B1 is based on 5 day working week, whereas all other land uses are based on 7 day working week							

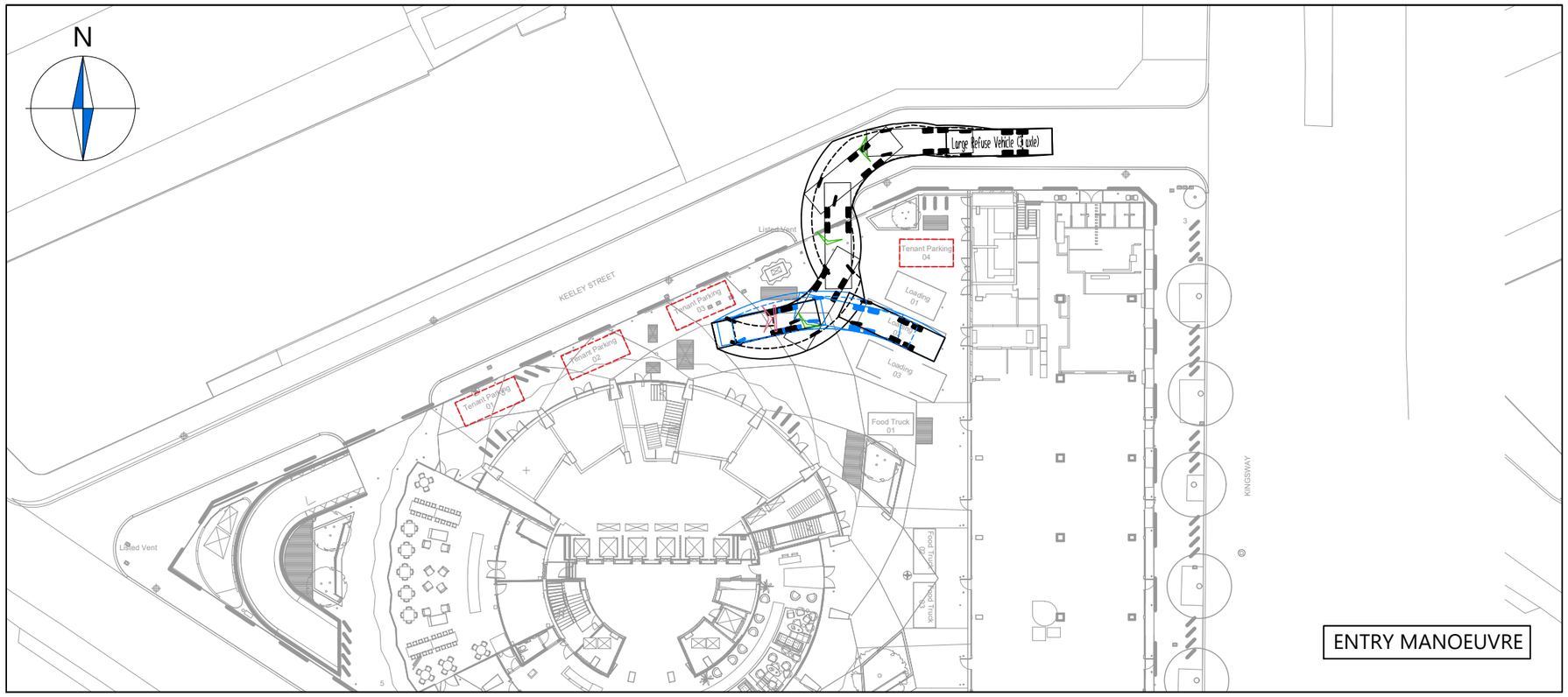
Twice Weekly

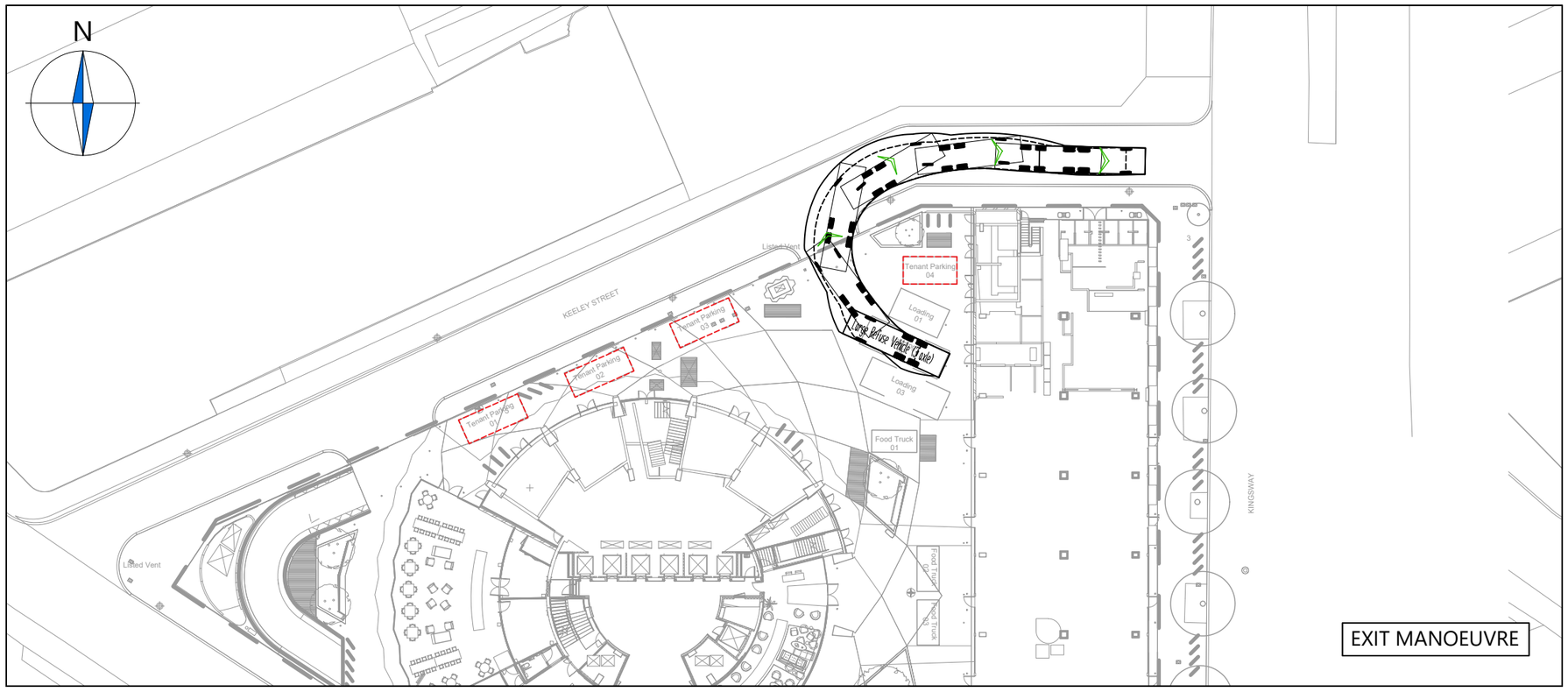
Land Use	NIA	WC	MDR	FOOD	GLASS	RESIDUAL	TOTAL
Retail (A1)	284.58	190	543			543	1,086
Retail (A3)	664.02	222	4,757.5	2,854.5		1,903	9,515
Office (B1)	21,339	2,633	39,495			39,495	78,990
Flexible B1/B2/Sui Gen	1446.6	181	1,552	517	1,552	1,552	5,173
FM		30	428.5			428.5	857
Total			46,776	3,371.5	1,552	43,921.5	95,621

Compacted – Twice Weekly

Land Use	NIA	WC	MDR	FOOD	GLASS	RESIDUAL	TOTAL
Overall	-	-	23,388	3,371.5	1,552	14,640.5	42,934
2:1 compaction ratio for MDR, whereas 3:1 for residual waste							

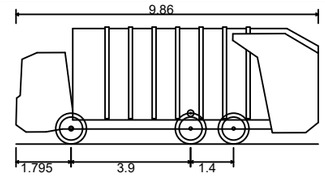
Appendix C Vehicle Tracking





NOTES

LARGE REFUSE VEHICLE (3 AXLE)



Overall Length	9.860m
Overall Width	2.450m
Overall Body Height	3.814m
Min Body Ground Clearance	0.366m
Track Width	2.450m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	9.500m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

Rev	Details	Drawn	Checked	Date
A	New Layout and Changes to Swept Paths	COS	RB	18.02.2021

REVISION HISTORY

Status:
- ☐ Preliminary
- ☐ For Approval
- ☐ For Construction
- ☑ For Information
- ☐ For Tender
- ☐ As Built

Client: Seaforth Land

Project: Space House

Drawing Title: External Service Yard Vehicular Swept Path Analysis using a Large Refuse Vehicle

Scale:	Size:	Drawn by:	Checked by:	Date:
1:500	A3	RB	SMcC	01.09.2020

CANEPARO ASSOCIATES
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Scheme Ref:	Drawing No:	Sheet :	Rev:
3758	TR034	3 of 8	A

CA3758-TR034_A - SWEPT PATH ANALYSIS ON SERVICE YARD.DWG