

project	12-16 Piccadilly	issued by	SG
	Waste management and servicing strategy	date	9 th July 2024
	PLANNING ISSUE	ref	HMP-BA-ZZ-XX-TFN-A-0001
		Rev	P04

1.0 Introduction

The proposed development is a new 34 storey aparthotel building (Use Class C1) including a ground floor café (Use Class Eb), exhibition hall on level 1 (Use Class F1) and a rooftop bar and restaurant on levels 28-31 (Use Class Eb). The site footprint is occupied by 50% new build tower and 50% existing Grade II listed former Union Bank. The proposal is for a 4* hotel that will accommodate 251 guest bedrooms.

The principles established in this strategy conform BS 5906:2005 Waste management in buildings – Code of practice, also referencing MCC GD 04 Waste Storage and Collection guidance for New Developments, and include the following considerations:

- Types of waste and estimated volumes produced by the proposed development.
- Plans / design of both waste and recycling storage (internal and external).
- Proposed collection point location and route collection vehicle will use.
- How waste will be transferred from the store to the collection location.
- Details of the quantity and size of proposed bins and collection frequency.

2.0 Refuse store and collection building design requirements

As stated in MCC GD 04 Waste Storage and Collection guidance for New Developments, the refuse store and collection strategy must comply with the following guidance:

- Should be located with close access to exterior collection point and away from main entrances
- Containers with sufficient clearance necessary to permit convenient positioning, removal and replacement of the containers
- Room to be of non-combustible construction with secure access and ventilation provided
- Loading bay for waste collection vehicle with adequate spacing and clearances provided for manoeuvring
- Maximum travel distance from storage area to collection area of 10m, and not exceed 15m
- Doors of waste storage rooms will have double doors with a minimum width of +1.3 metres for movement to the collection point, all corridors through which these wheeled bins have to be moved should have at least a width of +1.3 metres, and access space between containers of +1.3m
- Medium to large restaurants and hotels must include suitable separate storage provision for waste cooking oil;

Note, due to site constraints and integrating a Grade II listed building into the scheme, the size of the bin store has been reduced to accommodate daily collections. The collection arrangement will be contractually agreed with a private waste contractor prior to operation of the development.

3.0 Volume of bins required.

Hotel (Use Class C1)

BS 5906:2005 advises the typical weekly waste arising from the hotel bedrooms will be 350 litres per bedroom per week. For a 4* hotel accommodating 251 guest bedrooms, the proposed building will generate a total of 87,850 litres of waste per week.

With a proposed frequency of refuse collections per week at 7, a minimum of 11.5 x 1100 litre bins and 1 x 240 litre bin is required.

Restaurant / bar / café (Use Class Eb)

BS 5906:2005 advises the typical weekly waste arising from the restaurant will be 75 litres per cover per week. The restaurant / bar area will contain 310 covers, the proposed building will generate a total of 23,250 litres of waste per week.

With a proposed frequency of refuse collections per week at 7, a minimum of 3 x 1100 litre bins is required.

Exhibition / museum on level 1 (Use Class F1).

BS 5906:2005 doesn't contain specific guidance for exhibition / museum waste allowance.

As such guidance for entertainment complex / leisure centre has been used as this is most similar in building use type.

BS 5906:2005 advises typical weekly waste arising from entertainment complex of 5 litres per m² of floor area. For a exhibition / museum space of 216m², the proposed building will generate a total of 1080 litres of waste per week.

With a proposed frequency of refuse collections per week at 7, a minimum of 1 x 240 litre bin is required.

The guidance specifies that at least 50% of the waste generation capacity should be reserved for recycling. The composition of restaurant waste volume is estimated at following, based on industry expertise, policy targets and existing data:

- Paper, card, cartons: 25%;
- Glass, cans plastic: 25%;
- Food waste: 1%; and
- General refuse: 49%

Waste and recycling volume calculations for the proposed development are indicated in the below tables, note waste capacity is based on worse case 100% building occupancy that is only likely to occur 10% of the time annually.

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Guidance

Use class	BS 5906:2005 Guidance
C1 Hotel	350 litres waste / bedroom / week
Eb Restaurant / bar	75 litres / cover / week
F1 Exhibition	5 litres / m2 / week

Container requirements

Use class	Waste storage quantity	
	Quantities	Litres req.
C1 Hotel	251 x 350L	87850
Eb Restaurant / bar	310 x 75L	23250
F1 Exhibition	216 x 5L	1080
Total		112180

Waste estimates

Use class	Total waste Litres req.	Waste streams (litres)			
		Paper / card	Glass / cans / plastic	Food	General
		25%	25%	1%	49%
C1 Hotel	87850	21963	21963	879	43047
Eb Restaurant / bar	23250	5813	5813	233	11393
F1 Exhibition	1080	270	270	11	529
Total	112180	28045	28045	1122	54968

Waste volume and bin numbers

	Collection frequency	Bin numbers			
		Paper / card	Glass / cans / plastic	Food	Residual
		1100L bin	1100L bin	240L bin	1100L bin
Waste (litres)	Weekly	4006	4006	160	7853
Proposed Bin numbers	Weekly	4	4	1	7

4.0 Details of storage facilities

Waste storage requirements are based on the generated waste volumes (above) and the collection frequency provided by municipal and commercial waste collectors. For the proposed development daily collection frequency has been selected to reduce waste storage requirements, with the designed refuse store proving capacity for 15no. 1100L and 1no. 240L bins of the below standardised Eurobin sizes:

- 1,100 litre wheeled bin, width: 1.375 m, depth: 0.99 m, height: 1.37 m; and
- 240 litre wheeled bin: width: 0.58 m, depth: 0.74 m, height: 1.1 m.

The refuse store is located at ground floor level and is easily accessed from the goods lift serving the all levels.

To ensure accessibility and manoeuvrability a minimum 1.3m clearance is provided between bins which are arrangement allowing sufficient circulation space and easy access to each individual container. When adjacent to one another, bins can be positioned at least 150mm away from the next to allow for ease removal and replacement.

The the refuse store is 10m distance from the refuse collection point, recommended in BS 5906:2005. This distance will be kept to an absolute minimum, no more than 15m.

The refuse store is at ground floor level to Chatham Street, with a small ramp providing means of moving the bins between at 270mm level difference between the internal finish floor and street level.

Throughout the storage area, internal surfaces will have suitable hardwearing finishes and wall protection applied. All bins will have industry standard labels and colours to clearly identify the types of waste / recycling acceptable in each container.

5.0 Location of collection point

The waste collection strategy design is based on collection vehicles parking in the new allocated loading bay on Chatham Street. To ensure easy access the internal refuse store is located on the ground floor adjacent to this area, providing less than 10m distance to the proposed collection point. The hotel management will be responsible for moving bins out for collection opposite the designated loading bay and returning them to the bin store. Thereafter, the bins will be returned to the refuse rooms. It is expected the duration of the refuse collection will be about 10 minutes.



6.0 Waste transfer

Occupiers will be expected to employ best practice separate waste / recycling bins, clearly labelled to identify the type of waste stream. Each use class will arrange for their waste to be taken by cleaners to the designated refuse store every evening using the goods lift.

The internal waste movement routes from tenancies to the refuse store have been designed to provide step free access and minimum corridor widths of 1250mm.

Waste movement of bins from the refuse store to the collection point have been well considered, providing minimum door widths of 1300mm, and corridor width of 1300mm.

7.0 Food waste

The food waste generated will have a duty to comply with the requirements of Animal By-Product regulations 2005.