

Square Gardens, The Fernley (Blocks D)

Refuse Chute Management

1. Introduction

This strategy is produced further to condition 34 attached to decision notice 125573/FO/2019

34) Notwithstanding the details within 2 (i) prior to occupation of each phase details of the maintenance and management of the refuse chutes including full bin rotation, cleaning, odour and noise control shall be submitted to and approved in writing by the City Council as local planning authority. The details of the approved scheme shall be implemented prior to occupation shall remain in situ whilst the use or development is in operation.

2. Strategy

The development has been designed to comply with Manchester City Council's document 'Waste and Recycling Storage and Collection Requirements Guidance for Architects and Developers'.

A tri-chute separator, to cover the three waste streams individually collected by MCC, was initially considered. Following consultation with the installer (and based on the quantities of card/paper collected through our current schemes) it was decided to opt for a bi-chute system to carry the General Waste and other General Recyclables and to limit the amount of down time on the chute (due to blockage from cardboard/cardboard boxes, which the installer highlighted to be the most likely cause and a potentially frequent issue).

Card and paper will be dealt with separately. Tenants will initially have the option to leave cardboard/card boxes at reception on collection of parcels. There is a dedicated parcel storage and collection service which is manned 24 hours. If this offer is not taken by tenants, they will bring card items directly to the bin stores, where we will have designated card collection drop off areas with receptacles and signage to encourage tenants to flat pack the material.

These will be situated close to the entrances of the bin store for tenant ease. Dedicated site team operatives will regularly check the card/paper bins to ensure there is no cross contamination and that card is presented as required.

Within the refuse and recycling store, all bins will be rotated regularly to avoid overfilling, manage cross contamination and (for general and the remaining recyclable waste) effective bin chute usage. The residents will be responsible for the deposit of refuse and recycling into the correct chutes and or bins.

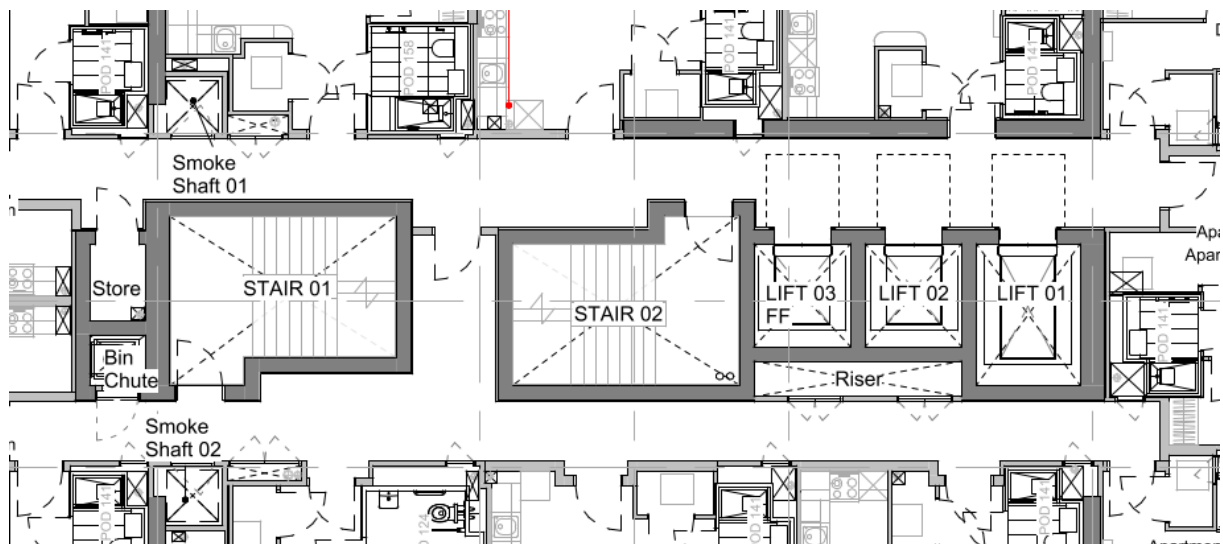
An option to collect and deposit green/food waste will be made available to tenants.

The management team will ensure that:-

- The bin chute and store are regularly checked, throughout the day, to ensure functionality and cleanliness
- All refuse is stored safely and collected as frequently as is required to maintain sufficient capacity for waste, and that this is reviewed regularly
- The bin store is cleaned and disinfected (including the bin receptacles) as often as is necessary to prevent pest infestations and odour

- The bin chute is serviced at quarterly intervals (as recommended by specialist maintenance contractors) and to standards including BS7671, BS EN 61439-1:2011 & 2:2011, as well as to ensure they comply with the sites fire strategy requirements
- When notified by the bin chute automated alert system, that bins are rotated for effective bin chute usage
- The bin chute is cleaned, at a frequency, as required to ensure cleanliness and reduce odours. Deep cleans will be programmed as required.
- Residents are made aware on how to use the bin chute- using bags (as appropriate), keeping them clean, no large items, ensuring full disposal etc. This will be covered in our tenant pre check in instructions and again as part of their site induction process. Regular tenant engagement pieces will be shared to maximise recycling potential. Advice on bin chute and store use will also be noted in tenant guides and on internal social platforms, and will include written as well as video-based instructions

Block D - Typical floor layout showing bin chute location on each floor from level 2- level 44

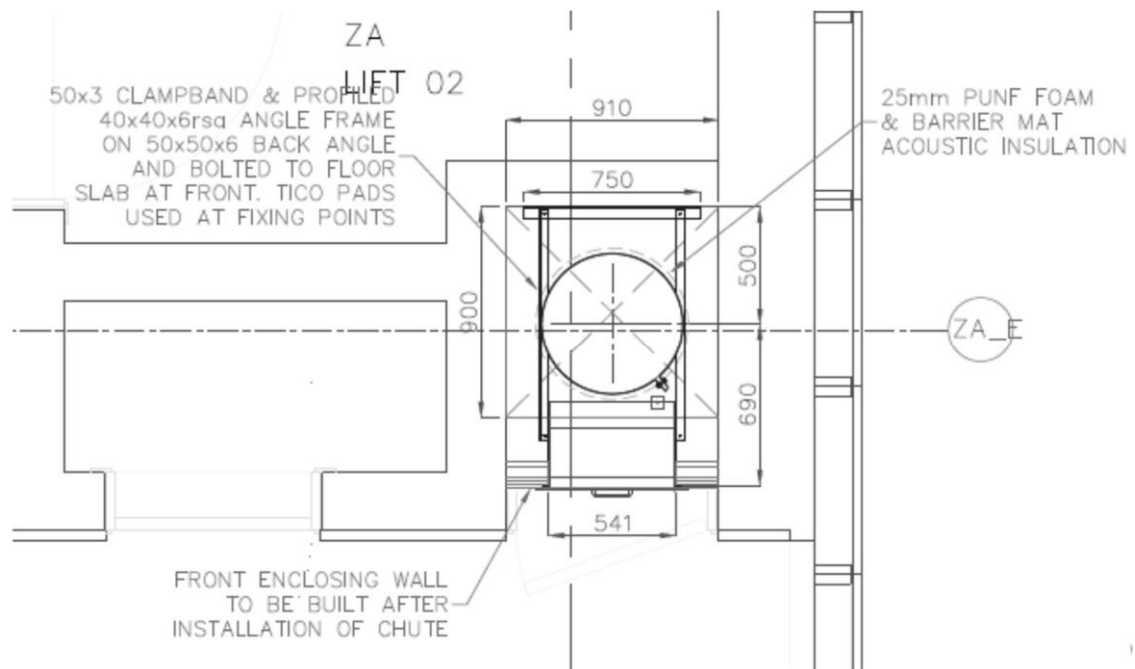


3. Chute make up and M&E provision

The chute is fitted within its own dedicated concrete shaft.

The shaft is ventilated to avoid the build-up of odour, but the chute is also enclosed with a stud wall at the front, and further screened by a fire rated door.

In addition to the acoustic performance of the concrete walls, the chute is wrapped with an acoustic foam.



The chute installed, is a Hardall, with slow-closing Grey Hammer hoppers which conform to BS1703:2005.

Access is provided on every floor (above the amenity spaces – lvls 2- 44) for tenants. Behind the screening door, the resident will be faced with a chute door control panel which will open the door after the appropriate waste stream is identified- either general waste or mixed dry recycling (not including paper/card as noted).

The hopper will not open if the bin on the ground floor level is full, the chute is already in use by another tenant, the chute is in self-cleaning mode or is blocked. Warning lights are provided on the front panel.

Once selected, the bi-Separator unit will set to position. Whilst this occurs the LED indicator will flash until the separator is set, the LED indicator will then stay illuminated and the interlock system will release the hopper for use. The electrical interlock mechanism provides a full automated lock-off of all remaining hopper doors on that Chute system when one is in use. The purpose of this is to avoid colliding waste and eliminate cross contamination.



The chute comes with an Auto-Clean system. This disinfectant and sanitizing device are contained within its own housing above the top entry of the chute, which is made accessible for maintenance and inspection purposes through a side hung access door with lock and key. Activated by the push of a button (from the main control panel located in the bin stores), the auto-clean system will begin its cleaning cycle. A cylindrical brush gear will descend the internal side of the chute, assisted by the spraying of disinfectant cleaning solution, until it reaches the discharge section.

The device will then retract and repark at the top of the chute within its housing, leaving the chutes cleaned, sanitised and available to use.

Contained within the cleaning housings will be a Class 'F' continuously rated foul-air extractor fan capable of displacing 324m³ per hour.

Two bins are located at the bottom of the chute, and the bi-separator on the chute directs the waste to the appropriate bin.

Container volume sensors (CVS) will be mounted to the system above the chute openings, constantly monitoring bin fill levels. These sensors will be connected to repeaters, which will be placed in the main reception, so the operations and nights concierge team are alerted. Once the containers are $\frac{3}{4}$ full, the sensors will send notification out to change over the bin.

