

DICKENS SOLUTIONS

WASTE MANAGEMENT PLAN

URBAN LINK ARCHITECTS (MR. G. RAHME)

PROPOSED MIXED USE RESIDENTIAL & COMMERCIAL DEVELOPMENT

@
52-54 POWELL STREET
&
125 PARRMATT A ROAD
STRATHFIELD

JUNE 2020

STRATHFIELD COUNCIL
RECEIVED

DA2019/196
19 June 2020

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PART 1 – OVERVIEW AND PROPOSAL

1.1 INTRODUCTION

This Waste Management Plan (WMP) describes in detail the manner in which all waste and other materials resulting from the on-going use of the building on the site are to be dealt with. This WMP does not include details on the demolition and construction stages of the development, which it is understood were the subject of a previous Waste Management Plan submitted by another external party.

The aims and objectives of this WMP are to: -

1. Satisfy all State and Local Government regulatory controls regarding waste management and minimisation practices,
2. Maximise waste reduction, material separation, and resource recovery in all stages of the development,
3. Ensure the design of waste and recycling storage facilities are of an adequate size, appropriate for the intended use of the building, hygienic with safe and manoeuvrable access, and,
4. Ensure that the provision of waste and recycling services to the completed buildings are carried out in an efficient manner, which will not impact negatively on the health, safety and convenience of all stakeholders.

This WMP is prepared in accordance with: -

- Strathfield LEP 2012,
- Strathfield DCP 2015 – Part H Waste Minimisation and Management Plan,
- All conditions of consent issued under the approved Development Application,
- The 'Better Practice Guide for Waste Management in Multi Unit Dwellings and Mixed Use Developments, and,
- The objective of ensuring that all waste management facilities and collection services will provide an outcome that will be effective and efficient, as well as promote the principles of health, safety and convenience.

This Waste Management Plan has been prepared for a Development Application submitted to Strathfield Council for the construction of a part 4, 8 and 9 storey building of mixed commercial and residential land uses, at 52-54 Powell Street and 125 Parramatta Road, comprising of:

- 115 x 1, 2 and 3 bedroom units,
- One (1) Ground Floor Commercial Unit, fronting Parramatta Road,
- Two (2) basement levels, and,
- Associated infrastructure, ancillary facilities and services.

It is understood that of a previous Waste Management Plan was submitted by another external party.

This Waste Management Plan (WMP) has been prepared independent to any previous documentation submitted by any other party and does not represent or address any issues or requirements prescribed therein. This WMP has been documented to address all of Council's requirements listed in Part 1.2 on pages 4-5.

This WMP is dated 19 June 2020.

1.2 HISTORY

The Development Application for this project was submitted to Strathfield Council in 2019. The DA File Number is DA2019/196.

Following correspondence from Council as part of the assessment process, a number of waste management issues were required to be addressed prior to any further consideration of the application.

All of the issues Council requires to be addressed are detailed in this WMP as indicated below.

These issues include:

- Architectural plans show 47sqm bulky goods store-room and according to DCP (which states 4sqm per 10 units) should be either one 47.6sqm for 119 units, or one room with 20.8sqm for tower with 52 residential units and one with 26.8sqm for tower with 67 residential units.

Response – There are 115 residential units, which according to DCP requirements requires a total space of 46sqm. It is therefore considered that the current size of the BWSA complies with Council's requirements. Only one area has been provided as it is considered its location in the basement being at grade, has a loading bay adjacent to it where materials can be safely unloaded, and is in close proximity to the driveway in and out of the site.

- Any specialised waste disposal equipment to be used in the development (i.e. compactors – carousel and linear, chutes, crushers, etc.) must be previously approved by Council

Response – Refer to Part 3 on pages 8 to 12 which provides details on the use and operation of the chute systems. Additionally there will be no compaction systems installed in any of the chutes.

- Onsite collection required. Waste collection vehicles must exit the site in a forward direction and not block access to vehicles.

Response – As indicated in Part 3.6.5.6 on page 18, all collection vehicles will enter and exit the site in a forward direction.

- Ensure that there is a minimum height of 3.6m for the entire path of travel of waste vehicles

Response – As indicated in Part 3.6.5.6 on page 18 and the Amended Architectural Drawings, a minimum height of 3.6m for the entire path of travel of waste vehicles will be provide.

- Waste management plan need to present methods to separate residential waste from commercial waste, which must comply with 3.8 Mixed-Use Development from Part H of the DCP.

Response – Refer to Part 3.7.6 on page 21.

- Commercial units should be serviced by a private waste contractor. Written evidence of valid contracts for the regular collection and disposal of waste and recyclables generated on the site by a licensed waste contractor must be provided.

Response – Refer to Part 3.7 on page 20 and 21.

For commercial units, written confirmation shall be provided by a private waste contractor to the applicant confirming that waste (general waste, recycling and bulky goods) collections can occur within the boundaries of the site without obstructing vehicle access to or from the site.

Response – Refer to Part 3.7.6 on page 21.

- The design and construction of all medium and high density buildings within the Parramatta Road Corridor must provide a conventional waste collection system that is adaptable to an AWCS, including adaptable waste rooms, in accordance to 3.4 Provision for Automated Waste Collection System (AWCS) from Part H of the DCP.

Response – Refer to Part 3.8 on pages 21-22

- Developments must be designed to allow for future connection of the AWCS, with the space and infrastructure needed for installation/retrofitting of the system included. This must be provided in accordance with Council requirements.

Response – Refer to Part 3.8 on pages 21-22

- Council may request detailed design drawings for the AWCS provision, including details of waste collection rooms, air inlet facilities, waste inlet areas, pipe access spaces and connection points

Response – Refer to Part 3.8 on page 21-22

- Provide council with an updated copy of waste management plan and architectural plans as designed in accordance with relevant sections of part H of the DCP.

Response – This WMP dated 19 June 2020 has been provided to Council to ensure it is satisfied with all waste management arrangements provided for the proposed development.

1.3 APPLICATION DETAILS

This Waste Management Plan (WMP) has been specifically designed for the development described below: -

DESCRIPTION	Part 4, 8 and Storey Building of Mixed Commercial and Residential Land Uses
NUMBER OF UNITS	- 115 x 1, 2 and 3 bedroom units, - One (1) Ground Floor Commercial Unit, - Two (2) basement levels; and, - Associated infrastructure, facilities and services.
LOCATION	52-54 Powell Street, and 125 Parramatta Road, Homebush.
LGA	Strathfield Council
APPLICANT	Urban Link Architects
ADDRESS	PO Box 2223, Burwood. NSW. 2134.
TELEPHONE	02 9745 2014
E-MAIL	GeorgesJ@urbanlink.com.au

1.4 DESCRIPTION OF PROPERTY

PROPERTY DESCRIPTION	The development is to be constructed over three (3) existing Torrens Title lot at: - Lot 11, DP 447, 52 Powell Street, - Lot 10, DP 447, Powell Street, and, - Lots 2 and 3, DP 130557, 125 Parramatta Road.
STREET ADDRESS	52-54 Powell Street and 125 Parramatta Road, Strathfield.
AREA	1,356sqm
ZONING	Zone B4 – Mixed Use
PLANNING INSTRUMENTS	Strathfield LEP 2012 Strathfield DCP 2015

The site is located over four (4) exiting lots on the northern side of Parramatta Road and the southern side of Powell Street, Homebush with frontages to both roads. It is situated in the western part of the Homebush town centre approximately 200m north-west of the Homebush Railway Station and the main Sydney suburban western railway line, with the M1 Motorway a short distance further north.

The immediate surrounding development consists primarily of retail and commercial land uses, with a mix of newer medium and high-density mixed-use developments within this precinct. To the south and south-west of the site there is a mix of medium and low-density dwellings. The Sydney Market precinct is also a short distance south-west of the site.

Currently on the site fronting Parramatta Road is a two storey commercial building, while the Powell Street site is a vacant bitumen covered site. All buildings and structures on both sites will be demolished and removed.

1.5 PROPOSAL

The proposal involves the construction of a part 4, 8 and 9 storey building of mixed commercial and residential land uses, at 52-54 Powell Street and 125 Parramatta Road, comprising of:

- 115 x 1, 2 and 3 bedroom units,
- One (1) Ground Floor Commercial Unit, fronting Parramatta Road,
- Two (2) basement levels, and,
- Associated infrastructure, ancillary facilities, and services.

The buildings will be built in three (3) towers:

- Tower 1 – Parramatta Road Tower comprises of 9 x storey building containing 52 x 1, 2 and 3 bedroom residential units and a ground floor commercial space comprising of 137sqm,
- Tower 2 – Central Tower comprises of a 4 x storey building containing 28 x 1, 2 and 3 bedroom residential units and a ground floor commercial space comprising of 137sqm,
- Tower 3 – Powell Street Tower comprises of an 8 x storey building containing 37 x 1, 2 and 3 bedroom residential units.

Upon its completion, the development will occupy the entire site. Egress from the development will be onto Powell Street on the northern side of the development.

As the proposed development incorporates both residential and commercial component, separate arrangements will be made for each component.

A 'Garbage Chute System' will be incorporated into the building. There will be three (3) chutes in all, two in the Parramatta Road Tower, which has two (2) cores and one (1) in the Powell Street Tower. The Central Tower is a 4 x storey building and as such is not required to have a chute system.

Three (3) bin chute rooms will be located in the basement which is common to all buildings. Waste from the chutes will be deposited into 1 x 660-litre mobile bin located under the chute in each respective bin room.

Separate Garbage Chute compartments and recycling compartments are also located on all residential levels of the building. These rooms will contain space for a 240-litre recycling bin.

All residential waste and recycling services will be provided from a dedicated waste collection area (loading bay) in Basement 1 as indicated on the Architectural Drawings.

Strathfield Council's waste collection contractor will provide all residential waste and recycling services to the development.

Commercial waste and recycling facilities are located on the ground floor of the complex as indicated on the Ground Floor Plan.

A licensed private waste and recycling collection contractor will provide all commercial waste and recycling services to the development.

The project consists of: -

1. The demolition of all existing dwelling and structures on the site,
2. The removal of all demolished materials in accordance with this WMP,

3. The excavation of the site to construct two (2) basement levels for car parking and other services,
4. The construction of the building,
5. The provision of landscaping, driveways, concrete pathways, and other elements associated with the development, and,
6. The on-going use of the building.

This Waste Management Plan has been developed not only to address all of the issues in it correspondence to the Applicant dated 4 June 2020, but also to ensure that all waste management storage and collection requirements will be undertaken in a practical and efficient manner, with minimal impact on the principles of health, safety and convenience. This WMP does not address any activities associated with the demolition and construction components of the development.

PART 2 – GARBAGE CHUTE SYSTEM

2.1 CHUTE DESIGN REQUIREMENTS

Garbage Chute Systems will be incorporated into the building design. The chute system will be for the disposal of waste material only.

There will be three (3) chutes in all, two in the Parramatta Road Tower, which has two (2) cores and one (1) in the Powell Street Tower:

- Chute 1 – Parramatta Road Tower – East Core,
- Chute 2 – Parramatta Road Tower – West Core,
- Chute 3 – Powell Street Tower.

Three (3) bin chute rooms will be located in the basement which is common to all buildings. Waste from the chutes will be deposited into 1 x 660-litre mobile bin located under the chute in each respective bin room.

Waste and Recycling Compartments will be located on each residential floor of all cores and both buildings for residents to deposit their waste (into the chute) and recyclables (into a 240-litre bin located next to the chute).

The Parramatta Road Tower East Core is located on the eastern side of the site. The waste and recycling compartments in which the chutes are installed is located on the western side of the lobby next to the fire stair and lift as indicated on the Floor Plans for each level of the core. Immediately next to the chute is the recycling compartment in which 1 x 240-litre recycling bin is provided.

The Parramatta Road Tower West Core is located on the western side of the site. The waste and recycling compartments in which the chutes are installed is located on the western side of the lobby next to the fire stair and lift as indicated on the Floor Plans for each level of the core. Immediately next to the chute is the recycling compartment in which 1 x 240-litre recycling bin is provided.

The Powell Street Tower is located on the northern side of the site. The waste and recycling compartments in which the chutes are installed is located on the western side of the lobby next to the fire stair and lift as indicated on the Floor Plans for each level of the core. Immediately next to the chute is the recycling compartment in which 1 x 240-litre recycling bin is provided.

4.2 CHUTE SYSTEM 1 – PARRAMATTA ROAD TOWER EAST CORE

The Waste and Recycling Compartments all 26 units situated in the East Core are located on the western side of the lobby of each residential floor next to the fire stair and lift as indicated on the Architectural Drawings.

Each compartment will have approximate internal dimensions of 2.0m x 1.0m, with a floor area of 2.0sqm, and will provide space for the garbage chute compartment, which will have internal dimensions of 750 mm x 750 mm and will be installed within these confines in a fire rated compartment.

Also located within each compartment immediately next to the chute will be 1 x 240-litre recycling bin. Residents will deposit their waste into the chute and their recyclables into the 240-litre bin.

All waste deposited into the Waste Chute will discharge into one (1) x 660-litre mobile waste bin located directly under the chute outlet point in the Bin/Chute 1 on the eastern side of Basement 1 next to the lift as indicated on the Architectural Drawings.

Based on Council's waste generation rates (120-litres of space per unit per week), it is anticipated that the 26 units in this core will generate 3,120 litres of waste per week, or 445.71 litres per day. Accordingly, Bin/Chute Room 1 will be inspected at least one (1) time per day in order to ensure that waste receptacles will be removed when full.

Representatives of the Owners Corporation will be responsible for transferring full 1100-litre waste bins from under the chute into the Residential Waste Collection Area located on Basement 1 where they will be stored prior to collection.

Full waste bins will be removed from under the Chute outlet and replaced immediately with an empty one.

Representatives of the Owners Corporation will monitor all activities associated with the use and operation of the chute, the depositing of waste into it, to ensure that there will be no spillage, and that the system operates effectively.

4.3 CHUTE SYSTEM 2 – PARRAMATTA ROAD TOWER WEST CORE

The Waste and Recycling Compartments all 26 units situated in the West Core are located on the western side of the lobby of each residential floor next to the fire stair and lift as indicated on the Architectural Drawings.

Each compartment will have approximate internal dimensions of 2.0m x 1.0m, with a floor area of 2.0sqm, and will provide space for the garbage chute compartment, which will have internal dimensions of 750 mm x 750 mm and will be installed within these confines in a fire rated compartment.

Also located within each compartment immediately next to the chute will be 1 x 240-litre recycling bin. Residents will deposit their waste into the chute and their recyclables into the 240-litre bin.

All waste deposited into the Waste Chute will discharge into one (1) x 660-litre mobile waste bin located directly under the chute outlet point in the Bin/Chute 2 on the western side of Basement 1 next to the lift as indicated on the Architectural Drawings.

Based on Council's waste generation rates (120-litres of space per unit per week), it is anticipated that the 26 units in this core will generate 3,120 litres of waste per week, or 445.71 litres per day. Accordingly, Bin/Chute Room 2 will be inspected at least one (1) time per day in order to ensure that waste receptacles will be removed when full.

Representatives of the Owners Corporation will be responsible for transferring full 1100-litre waste bins from under the chute into the Residential Waste Collection Area located on Basement 1 where they will be stored prior to collection.

Full waste bins will be removed from under the Chute outlet and replaced immediately with an empty one.

4.4 CHUTE SYSTEM 3 – POWELL STREET TOWER

The Waste and Recycling Compartments all 37 units situated in the Powell Street Tower are located on the southern side of the lobby of each residential floor next to the lift and diagonally opposite the fire stair as indicated on the Architectural Drawings.

Each compartment will have approximate internal dimensions of 2.0m x 1.0m, with a floor area of 2.0sqm, and will provide space for the garbage chute compartment, which will have internal dimensions of 750 mm x 750 mm and will be installed within these confines in a fire rated compartment.

Also located within each compartment immediately next to the chute will be 1 x 240-litre recycling bin. Residents will deposit their waste into the chute and their recyclables into the 240-litre bin.

All waste deposited into the Waste Chute will discharge into one (1) x 660-litre mobile waste bin located directly under the chute outlet point in the Bin/Chute 3 on the northern side of Basement 1 as indicated on the Architectural Drawings. It is also noted that Bin/Chute is located within the confines of the Residential Waste Collection Area.

Based on Council's waste generation rates (120-litres of space per unit per week), it is anticipated that the 37 units in the Powell Street Tower will generate 4,439.96 litres of waste per week, or 634.28 litres per day. Accordingly, Bin/Chute Room 3 will be inspected at least one (1) time per day in order to ensure that waste receptacles will be removed when full.

Representatives of the Owners Corporation will be responsible for transferring full 1100-litre waste bins from under the chute into the Residential Waste Collection Area located on Basement 1 where they will be stored prior to collection.

Full waste bins will be removed from under the Chute outlet and replaced immediately with an empty one.

Representatives of the Owners Corporation will monitor all activities associated with the use and operation of the chute, the depositing of waste into it, to ensure that there will be no spillage, and that the system operates effectively.

4.5 OPERATIONAL REQUIREMENTS – ALL CHUTES

At a minimum, each Garbage Chute System will be designed to meet the following requirements: -

1. Chutes and service openings must be constructed of metal or other smooth faced, durable, fire resistant and impervious material of non-corrosive nature.
2. Chutes will be cylindrical in section with a minimal internal diameter of 500 mm. The diameter around each chute will be a minimum width of 750 mm to allow for infrastructure fittings, such as fixing brackets and noise insulation.
3. Chutes will be vertical without bends or "off-sets" (except for the chute outlets) and not be reduced in diameter.
4. The Chutes and service openings must be capable of being easily cleaned.
5. Chutes must be ventilated to ensure that air does not flow from the chute through any service opening.

6. The Garbage Chute systems must comply with the relative provisions of the Building Code of Australia, and relevant Australian Standards (e.g., AS1530.4-2005).
7. Upon the appointment of the company selected to install the chutes, and completion of the chute design, Council will be provided with a manufacturers specification of all chute systems.
8. The chute discharge points will be restricted to residents by a caged enclosure in order to prevent injury, and will be provided with suitable circulation space, in accordance with the manufacturers' specification.

Representatives of the Owners Corporation will monitor all activities associated with the use and operation of the chutes and the depositing of waste and recycling material into them and will also be responsible for transferring full 660-litre waste bins from all bin/chute rooms into the Residential Waste Collection Area for storage prior to servicing.

4.6 ON GOING MANAGEMENT & MAINTENANCE OF CHUTE SYSTEM

4.5.1 Generally

The Owners Corporation will be responsible for all issues associated with the on-going management and maintenance of the Garbage Chute Systems and all activities associated with it.

These activities will include, but not be limited, to the following: -

- a) Displaying signage indicating appropriate use of all waste management systems, including what is and what is not recyclable.
- b) Educating residents in the correct use of the chute, and the need to keep bulky items out of the chute systems.
- c) Providing regular maintenance, including cleaning and unblocking chutes.
- d) Regular inspection of the Garbage Chute Compartments, the Garbage Chute Outlet Compartments, and the Bin Rooms to ensure that all waste and recyclables are managed appropriately.
- e) Educating residents in the correct use of each chute, to ensure that waste material is not deposited into the recycling chute, and that recycling material is not placed into the waste chute.

4.6.2 Bin Room Infrastructure

In accordance with Council requirements, the following infrastructure will be incorporated into the design of all bin rooms: -

1. Suitable door access for the service of bins,
2. Where roller doors are provided, an additional service door will be provided inclusive of an Abloy key system,
3. All floors will be finished with a non-slip and smooth and even surface covered at all intersections,
4. The floor will be graded to a central drainage point connected to the sewer,
5. Rooms will be fully enclosed and roofed with a minimum internal room height in accordance with the BCA 2016,
6. Rooms are to be provided with an adequate supply of water through a centralised mixing valve with hose cock, and.

7. Incorporation of adequate light and ventilation in accordance with requirements of the BCA 2016.

4.7 MANAGEMENT OF RECYCLING

4.7.1 Management of Recycling – Buildings with Waste Chutes

This Part (Part 4.6.1) applies to all units located in a building where waste chutes have been installed.

Residents will place their recycling material into the 240-litre mobile recycling bin located in the waste and recycling compartment on that level of the building.

A representative of the Owners Corporation will be responsible for transporting full 240-litre mobile bins from the compartment on each floor of the building into the recycling bin storage area of the Residential Waste Collection Area on the ground floor.

An empty 240 litre mobile recycling bin will be placed in the waste and recycling compartment when a full one is removed.

Servicing and replacement of 240 litre recycling bins located in the waste and recycling compartments on each residential level of the building will take place on a regular basis to avoid hygiene, spillage and dumping problems.

All waste handling activities (including the transfer of recycling bins) will be undertaken by representatives of the Owners Corporation.

4.6.2 Management of Recycling – Building with No Waste Chutes

This Part (Part 4.6.1) applies to all units located in a building where waste chutes have been installed.

The Central Tower is a 4 x storey building and as such is not required to have a chute system.

For all units located in the Central Tower building, all residents will be responsible for depositing all of their recycling material into one of the 240-litre recycling bins located in the Residential Waste Collection Area located in Basement 1.

PART 3 – ON GOING USE OF BUILDING

3.1 OBJECTIVES

1. To ensure that the storage, amenity and management of waste is sufficient to meet the needs of the development.
2. To ensure that all waste management activities are carried out effectively and efficiently, and in a manner that promotes the principles of health, safety and, convenience.
3. To promote waste minimisation practices.

3.2 ASSUMPTIONS

In preparing this proposal, the following assumptions have been made: -

1. The development comprises of a part 4, 8 and 9 storey building of mixed use residential and commercial land uses.
2. As there are both residential and commercial components within the building, separate waste storage facilities will be provided for each component.
3. The complex is separated into four (4) components:
 - a) Parramatta Road Tower East Core – 9 x storey building with 26 x 1, 2 and 3 bedroom units,
 - b) Parramatta Road Tower West Core – 9 x storey building with 26 x 1, 2 and 3 bedroom units,
 - c) Central Core – 4 x storey building with 28 x 1, 2 and 3 bedroom units,
 - d) Powell Street Tower – 8 x storey building with 37 x 1, 2 and 3 bedroom units,
4. A Garbage Chute System will be incorporated into the building design for the residential component for the reception of waste material only for all buildings over four (4) storeys.
5. Where chutes are installed Waste and Recycling Compartments will be provided to all residential levels of the building for the use of residents to deposit both waste into the chute hopper.
6. All waste from the garbage chute will fall into 1 x 660-litre waste bin located under the chute outlet compartment located in the one (1) of three (3) bin/chute rooms located in Basement 1 as indicated in the Architectural Drawings.
7. For the 4 x storey Central Core building, where no chute is required, the residents of all units will be responsible for transferring all of their waste material into one (1) of the 660-litre mobile waste bins provided in the Residential Waste Storage Area (RWSA) in Basement 1.
8. Also located in each Waste and Recycling Compartment, provided on all residential levels, will be 1 x 240-litre recycling bin for residents to dispose of their recycling material.
9. Where chutes are installed full recycling bins will be transferred from each recycling compartment by the Building Manager or their representative, into the Residential Waste Storage Area (RWSA) in Basement 1, where they will be stored prior to servicing.
10. The RWSA is located in Basement 1 of the building as indicated in the Architectural Drawings. All waste and recycling services for both the residential and commercial components of the building will take place from a dedicated Loading Bay located adjacent to the RWSA.
11. In order to meet Council's servicing requirements, all residential waste will be stored in 21 x 660-litre red lidded waste bins.

12. In order to meet Council's servicing requirements, all recycling will be stored in 11 x 660-litre yellow lidded recycling bins.
13. Residential waste services will be weekly.
14. Residential recycling services will be provided fortnightly.
15. The number and size of bins have been calculated from information provided by Strathfield Council, and from the Strathfield DCP 2015 – Part H – Waste Management and Minimisation Plan.
16. Strathfield Council will provide all waste and recycling services to the complex.
17. All waste and recycling services will take place from a loading bay located adjacent to the RWSA in Basement 1 of the building.
18. The loading bay will be designed to accommodate a rear loading MRV collection vehicle.
19. One commercial unit will be located on the ground level of the Parramatta Road Tower.
20. Commercial waste and recycling services will be provided to the unit in accordance with Council's DCP as specified in this WMP.
21. All commercial waste and recycling bins will be stored in commercial waste storage areas as detailed in Part 5.7.5 on page 30.
22. A licensed private waste collection contractor will provide all commercial waste and recycling services to the complex.
23. The Owners Corporation will appoint a Building Manager/Caretaker whose responsibilities will include managing all activities associated with the provision of all waste and recycling services to the building.

3.3 RESIDENTIAL WASTE HANDLING & MANAGEMENT

A cabinet will be located within each residential unit so that a receptacle, or receptacles, may be stored or housed in a convenient and practical location within the unit, for the reception of waste and recyclable material.

All waste and recyclables should be appropriately bagged or wrapped prior to being deposited into the designated garbage chute or recycling bin, or in the case of the the building without the chute the RWSA.

3.4 RESIDENTIAL WASTE & RECYCLING – SERVICE REQUIREMENTS

All waste and recycling materials will be stored in approved receptacles of an appropriate size as specified in this WMP. The lids of the bins shall be closed at all times to reduce litter, stormwater pollution, odour and vermin.

The Council in general requires that colour coded receptacle lids that distinguish each service component are to be provided: -

- Waste Service – Red Lidded receptacle;
- Recycling Service – Yellow Lidded receptacle; and,
- Green Waste – Green Lidded receptacle.

No formal green waste service will be provided to the development.

It will be the responsibility of the Owners Corporation to ensure that all green waste generated from the on-going use of the development is disposed of appropriately.

3.5 RESIDENTIAL WASTE & RECYCLING – SERVICE ARRANGEMENTS

The following table (Table 1) specifies the criteria for waste and recycling generation rates (as specified by Strathfield Council) based on: -

- Waste – 120 litres of bin space per unit per week, serviced twice weekly; and,
- Recycling – 60 litres of bin space per unit per week, serviced fortnightly.

All waste and recycling generation rates were obtained from discussions with Council staff, and from information contained in the Strathfield DCP 2015 – Part H.

TABLE 1 – RESIDENTIAL WASTE & RECYCLING GENERATION RATES

SERVICE TYPE	UNITS	BIN SPACE PER UNIT	TOTAL SPACE REQUIRED	BINS SIZE	SERVICES PER WEEK	BINS REQUIRED	BINS PROVIDED
Waste	115	120	13,800	660	1	20.90	21
Recycling	115	60	6,900	240	0.5	28.75	28

The following table (Table 2) specifies the proposed bin servicing requirements for the building and is based on the above waste and recycling generation rates: -

TABLE 2 – PROPOSED RESIDENTIAL SERVICING ARRANGEMENTS

WASTE	RECYCLING
21 x 660-litre bins / 1 x Weekly	28 x 240-litre bins / 1 x Fortnightly

3.6 PROVISION OF WASTE & RECYCLING SERVICES

3.6.1 Waste and Recycling Collection Service Provider Details

Strathfield Council will provide all residential waste and recycling services to the building.

3.6.2 Details of Mobile Containers

In relation to the size and design of the waste and recycling mobile bins, the following technical information is provided: -

CONTAINER TYPE	HEIGHT (metres)	DEPTH (metres)	WIDTH (metres)
240-litre mobile container	1.080	0.735	0.585
660-litre mobile container	1.470	1.070	1.240

In addition to the 21 x 660-litre mobile waste bins required by Council as part of their service requirements, the Owners Corporation will provide an additional number of 660-litre mobile waste bins in order to ensure that a bin is provided at all times below the Garbage Chute Outlet.

In addition to the number of 240-litre mobile recycling bins required by Council as part of their service requirements, the Owners Corporation will provide an additional number of 240-litre mobile recycling bins in order to ensure that a bin is provided at all times in the Recycling Compartments on each residential floor level.

3.6.4 Waste & Recycling Requirements

Waste and recycling requirements are provided in the table below.

SERVICE	NUMBER OF CONTAINERS	COLLECTION FREQUENCY
Waste Service	17 x 660-litre mobile containers	Two (2) Services per Week
Recycling Service	23 x 240-litre mobile containers	Two (2) Services per Week

3.6.5 Location, Design, and Construction of Waste and Recycling Compartments, Chute/Bin Rooms and Collection Area

Details of all waste storage facilities are listed below.

3.6.5.1 Garbage Chute Compartments

Where chutes are installed a service room in the form of a 'Waste and Recycling Compartment' (See Floor Plans) will be provided to each residential level of the building.

Each compartment measures 2.0m x 1.8m, and will provide space for:

- A garbage chute, which will have internal dimensions of 750 mm x 750 mm and be installed within these confines in a fire rated compartment, and
- 1 x 240-litre recycling bin.

Residents will place their recycling material into a 240-litre mobile recycling bin located in the Recycling Compartment on that level of the building.

3.6.5.2 Bin/Chute Room 1 – Parramatta Road Tower East Core

All waste deposited into the Waste Chute from this core of the building will discharge into one (1) x 660-litre mobile waste bin located directly under the chute outlet point in the Bin/Chute 1 on the eastern side of Basement 1 next to the lift as indicated on the Architectural Drawings.

Bin/Chute Room 1 is a fully enclosed rectangular structure measuring 5.6m x 3.0m with an area of 16.8sqm. Within its confines will be space for:

- The Waste chute outlet point with 1 x 660-litre mobile waste bin located under,
- Storage space for 2 x 660-litre mobile bins (spares),
- A 1.5m wide access doorway, and,
- Appropriate infrastructure.

3.6.5.3 Bin/Chute Room 2 – Parramatta Road Tower West Core

All waste deposited into the Waste Chute from this core of the building will discharge into one (1) x 660-litre mobile waste bin located directly under the chute outlet point in the Bin/Chute 1 on the western side of Basement 1 next to the lift as indicated on the Architectural Drawings.

Bin/Chute Room 2 is a fully enclosed rectangular structure measuring 5.6m x 3.0m with an area of 16.8sqm. Within its confines will be space for:

- The Waste chute outlet point with 1 x 660-litre mobile waste bin located under,
- Storage space for 2 x 660-litre mobile bins (spares),
- A 1.5m wide access doorway, and,
- Appropriate infrastructure.

3.6.5.4 Bin/Chute Room 3 – Powell Street Tower

All waste deposited into the Waste Chute from this core of the building will discharge into one (1) x 660-litre mobile waste bin located directly under the chute outlet point in the Bin/Chute 3 on the northern side of Basement 1 next to the lift as indicated on the Architectural Drawings.

Bin/Chute Room 3 forms part of the Residential Waste Storage Area, which is detailed in Part 3.6.5.5 below.

3.6.5.5 Residential Waste Storage Area (RWSA)

The RWSA is located on the northern side of Basement 1 adjacent to the lifts and fire stair. It is a fully enclosed L shaped structure, with an area of approximately 63sqm.

Within the confines of the RWSA will be:

- The garbage chute outlet with 1 x 660-litre waste bin under the outlet point for all bins associated with the waste from unit in Bin/Chute Room 3,
- Storage space for 21 x 660-litre waste bins required to be serviced by Council,
- Storage space for 28 x 240-litre recycling bins required to be serviced by Council
- An appropriate number of spare 240-litre recycling and 660-litre mobile waste bins, and,
- Associated infrastructure.

3.6.5.6 Waste Collection Area (WCA) / Loading Bay

All residential waste and recycling bins will be serviced from a dedicated Loading Bay located adjacent to the RWSA. The loading bay will be designed to accommodate a MRV rear loading collection vehicle, with a minimum operational and travel height clearance provided for its access of 3.6m.

Council's rear loading waste collection vehicle will be used to provide all residential waste and recycling services to the building. Based on information provided by Council, the vehicle will be a MRV, with the following approximate dimensions:

- Length – 8.8m,
- Operational Height – 3.3m,
- Width – 2.82m (mirror to mirror), and,
- A 22m swept path.

As required by Council, all collection vehicles will enter and exit the building in a forward direction. Collection and servicing activities will take place in the following manner: -

1. The Collection vehicle will enter the building from Powell Street on the northern side of the site and proceed into Basement 1.
2. The collection vehicle will reverse into the loading bay so that the rear of the vehicle is facing towards the eastern side of the RWSA.
3. A member of Council's collection team will remove the bins from the RWSA and place the bins onto the rear lifter which will load the bins into the body of the collection vehicle.
4. Once the bins have been serviced, they will be returned to the RWSA a member of Council's collection team.
5. The vehicle will then exit the building in a forward direction.
6. Servicing of bins will be as specified in Sections 3.6.6 and 3.6.7 on page 18 of this Plan.

All internal access, parking and servicing arrangements are to comply with all relevant Australian Standards.

3.6.6 Servicing Arrangements – Residential Waste Collections

All waste services will be provided by Strathfield Council, using a rear loading collection vehicle, that will enable all collections to be carried out effectively and efficiently, and in a manner that will aim not impact negatively on the principles of health, safety or convenience.

All waste collections will take place from the loading bay located adjacent to the RWSA.

A member of Council's collection team will remove the bins from the RWSA and place the bins onto the rear lifter which will load the bins into the body of the collection vehicle.

Once the bins have been serviced, they will be returned to the RWSA by a member of Council's collection team.

The waste bins will be serviced one (1) day per week, on a day to be determined by the Council.

All 21 x 660-litre mobile waste bins will be presented for servicing on each collection day.

3.6.7 Servicing Arrangements – Residential Recycling Collections

All recycling services will be provided by Strathfield Council, using a rear loading collection vehicle, that will enable all collections to be carried out effectively and efficiently, and in a manner that will aim not impact negatively on the principles of health, safety or convenience.

All recycling collections will take place from the loading bay located adjacent to the RWSA.

A member of Council's collection team will remove the bins from the RWSA and place the bins onto the rear lifter which will load the bins into the body of the collection vehicle.

Once the bins have been serviced, they will be returned to the RWSA by a member of Council's collection team.

The recycling bins will be serviced one (1) day per fortnight, on a day to be determined by the Council.

All 28 x 240-litre mobile recycling bins will be presented for servicing on each collection day.

3.7 COMMERCIAL WASTE & RECYCLING SERVICES

3.7.1 Details of Commercial Land Uses

The commercial component of the building will comprise of one (1) commercial unit located on the ground floor of the Parramatta Road Tower as indicated on the Architectural Drawings. It has a floor area of 137sqm and at the time of DA submission its end use is unknown. However, it will be assumed that it will be used for one of the land use activities outlined in Table 3 in Part 3.7.2.

3.7.2 Waste & Recycling Generation Rates

The Table below (Table 3) details the waste and recycling generation rates for the commercial land uses proposed. These rates have been obtained from Appendix B – Waste and Recycling Generation Rates on page 272 of Council's Waste Management DCP.

TABLE 3 – WASTE & RECYCLING GENERATION RATES FOR COMMERCIAL LAND USE ACTIVITIES

SERVICE	LAND USE	WASTE & RECYCLING GENERATION RATES
Waste	Retail (No Food)	50 litres of waste per 100sqm of floor area per day – more than 100sqm
Recycling	Retail (No Food)	50 litres of recyclables per 100sqm of floor area per day – more than 100sqm
Waste	Office	10 litres of waste per 100sqm of floor area per day
Recycling	Office	10 litres of recyclables per 100sqm of floor area per day
Waste	Takeaway Food Shop	80 litres of waste per 100sqm of floor area per day
Recycling	Takeaway Food Shop	40 litres of recyclables per 100sqm of floor area per day
Waste	Showroom	40 litres of waste per 100m2 of floor area per day
Recycling	Showroom	10 litres of waste per 100m2 of floor area per day

3.7.3 Commercial Waste and Recycling Service Requirements

The following table (Table 4) specifies the criteria for waste generation rates (as specified in Part 5.7.2, based on the assumption the commercial unit will be used as a takeaway food shop.

TABLE 4 – COMMERCIAL WASTE & RECYCLING GENERATION RATES & SERVICE REQUIREMENTS

DESCRIPTION	WASTE	RECYCLING
Number of Shops	1	1
Proposed Use	Takeaway Food Shop	Takeaway Food Shop
Waste Generation Rate	80L / 100sqm of Floor Area / Day	40L / 100sqm of Floor Area / Day
Total Floor Area	137sqm	137sqm
Waste Generation/Week	137 / 100 x 80 x 7	137 / 100 x 40 x 7
Space Required / Week	767.20	383.60
REQUIREMENTS	2 x 240-Litre Waste Bins Two (2) Services per Week	1 x 240-Litre Waste Bins Two (2) Services per Week

All commercial waste services will be provided by a licensed private waste contractor.

Commercial arrangements for the provision of all waste services are to take place generally, in accordance with the abovementioned provisions.

Alternate bins sizes and, or collection frequencies, may be employed to achieve these rates. However, appropriate records are to be maintained to ensure that all service requirements are achieved.

All commercial waste services are to be undertaken in a manner that will not adversely impact on the principles of health, safety or convenience.

A Service Agreement will be entered into between the Owners Corporation and the appointed Contractor describing the manner in which all commercial waste services will be provided. A copy of this agreement will be provided to the Council.

3.7.5 Storage of Commercial Waste and Recycling Bins

A Commercial (Retail) Waste Storage Area (WSA), is provided for the storage of all waste and recycling bins associated with the use and occupation of all commercial unit.

The Commercial WSA is located in Basement 1 as indicated in the Architectural Drawings. At a minimum the Commercial WSA will provide storage space for 2 x 240-litre mobile waste bins and 2 x 240-litre mobile recycling bins.

All waste and recycling material derived from the commercial unit on the Ground Floor will be stored within the confines of the Commercial WSA.

3.7.6 Provision of Commercial Waste and Recycling Services

All commercial waste and recycling services will be provided by a licensed private waste and recycling collection contractor, using a rear loading collection vehicle, that will enable all collections to be carried out effectively and efficiently, and in a manner that will aim not impact negatively on the principles of health, safety or convenience.

All commercial waste and recycling collections will take place from a loading bay adjacent to the waste collection area, which has been designed to accommodate at a minimum a MRV, although services may be carried out using a MRV.

All services are to be undertaken in an efficient manner that will promote the principles of health, safety and convenience and not impact negatively on the amenity of the complex and its surrounds. Additionally, all collections will occur from within the boundaries of the site without obstructing vehicle access to or from the site.

All commercial waste and recycling bins will be returned to the Commercial WSA immediately after they have been serviced.

3.8 AUTOMATED WASTE COLLECTION SYSTEM

An Automated Waste Collection System (AWCS) is an underground pneumatic collection system where waste and recycling material is transported at high speed through underground pneumatic tubes to a centralized collection station where it is placed in sealed containers and transported to a processing or disposal facility.

The process begins with waste and recycling materials being deposited into inlet hoppers which also acts as a container and the pulled through a pneumatic air pressure process to a centralized collection system that uses automated software to direct the material to an appropriate container.

At this point time, there is only one AWCS in operation in Australia – Sunshine Council in Queensland.

Council requires all new developments within the Parramatta Road Corridor to provide a conventional waste collection system that is adaptable to an AWCS, including adaptable waste rooms, in accordance to 3.4 Provision for Automated Waste Collection System (AWCS) from Part H of the DCP.

Developments must be designed to allow for future connection of the AWCS, with the space and infrastructure needed for installation and retrofitting of the system included.

In the case of this particular development a conventional waste collection system, approved by Council, has been provided in the form of a garbage chute, which will be designed and installed in accordance with current Australian Standards and manufacturers specifications.

The chute is for the reception of waste material only. For it to be retrofitted to this new technology the chute would need to be extended to the basement slab level for connection to the ACSW. As there are three (3) chutes within the development, this process would need to apply to all three.

A separate inlet would need to be provided for all recycling material in each of the Bin/Chute Rooms.

In order to cater for any new infrastructure spatial requirements for each bin/chute room would need to be re-assessed. However at this stage there are no design specifications available to provide guidance for what would be required. Notwithstanding it is assumed that as all conventional waste management systems provided in current buildings have been designed, manufactured, and installed in accordance with current industry and regulatory standards, any new technology would take into account current system regulatory and design standards, and a compatible engineering solution would be applied to produce a compliant and practical outcome.

3.9 GREEN WASTE

No formal green waste service will be provided.

It will be the responsibility of the Owners Corporation to ensure that any green waste generated from the on-going use of the site, will be disposed of appropriately.

3.10 BULKY WASTE STORAGE AREAS (BWA'S)

Secure storage spaces are required to be provided for each residential unit in accordance with the provisions of Council's DCP 2015.

Consistent with these requirements a Bulky Waste Storage Area has been provided for residents to place unwanted materials awaiting collection and removal.

The Bulky Waste Storage Area is located in the adjacent to the RWSA. It has a floor area of 47sqm.

The Owners Corporation will monitor this area regularly to ensure that all materials stored within their confines are done so in a manner that will not adversely impact on the health, safety, and convenience.

Regular maintenance of the area will be carried out.

The Owners Corporation will also be responsible for arranging Clean Ups to ensure the efficient and regular removal at these materials.

It will be the responsibility of the occupants of individual residential units, to dispose of this material, appropriately.

Further information in relation to Council's Clean-up service can be obtained from Council's website at www.strathfield.nsw.gov.au

3.11 ON GOING OPERATION, USE & MAINTENANCE OF WASTE MANAGEMENT FACILITIES

All waste management facilities will be maintained in a clean and hygienic condition that will promote the principles of health, safety and convenience.

In order to achieve these objectives, the following facilities and devices will be required: -

1. The walls and floors of all Bin/Chute Rooms and WSA's are to be constructed of smooth faced masonry or concrete, and all walls will be painted with light coloured and washable paint.
2. The junction between all floors and walls will be coved and sealed up to 100mm above the floor level, in order to eliminate the build-up of dirt and grime.
3. A floor waste, connected to the Sydney Water drainage system in accordance with that Authority's requirements, will be provided to all waste storage facilities, and the floors will be graded to drain into it.
4. Appropriate washing facilities will be provided to all waste storage facilities, including appropriate plumbing and drainage fixtures and fittings, and the provision of running water.
5. All waste storage facilities will be washed and cleaned on a regular basis.
6. All mobile bins will be washed and cleaned on a regular basis.
7. All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.
8. Natural and mechanical ventilation will be required to be installed within all waste storage facilities in accordance with the relative provisions of the Building Code of Australia.
9. Appropriate signage will be erected within all waste storage facilities, providing instruction to residents on how to use waste and recycling facilities, including what is and what is not recyclable.
10. The Owners Corporation will be responsible for ensuring that all waste and recyclable matter and materials are placed and stored within the appropriate containers provided.

PART 4 – SUMMARY

4.1 SUMMARY

In summarising this proposal, the following information is provided:

1. This Waste Management Plan (WMP) has been developed and documented generally in accordance with the Strathfield Council DCP 2015 – Part H - Waste Management.
2. The number and size of bins have been calculated from information provided by Strathfield Council.
3. All residential waste and recycling services will be provided by Strathfield Council.
4. All commercial waste and recycling services will be provided by a licensed private waste and recycling collection contractor.
5. The Owners Corporation will be responsible for ensuring that all on-going waste management activities are carried out in accordance with the provisions of this Waste Management Plan.
6. The WMP aims to promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building;
7. The WMP aims to ensure the design of waste and recycling storage facilities are of an adequate size, appropriate for the intended use of the building, hygienic with safe and manoeuvrable access.
8. The WMP aims to ensure that the provision of waste and recycling services to the completed buildings are carried out in an efficient manner, which will promote the principles of health, safety and convenience.

This is a unique development with a unique set of arrangements for its waste management activities.

The measures set out in this WMP aim to demonstrate that all such activities will be carried out effectively and efficiently, in a healthy, safe and convenient manner, to acceptable community standards, and to the requirements of Strathfield Council.