DICKENS SOLUTIONS

WASTE MANAGEMENT PLAN

URBAN LINK ARCHITECTS (FREEBURNVILLE PTY LTD)

PROPOSED RESIDENTIAL FLAT BUILDING @ 96-98 LETHBRIDGE STREET & 42-46 EVAN STREET PENRITH

NOVEMBER 2020

Dickens Solutions Pty Ltd
(ABN 41 603 040 446)
1214 Botany Road, Botany NSW 2019
Telephone (Mb) 0400 388 996
Website: www.dickenssolutions.com.au E-mail: garry@dickenssolutions.com.au

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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 demolition, construction and on-going use of the building on the site are to be dealt with.

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. Promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building;
3. Maximise waste reduction, material separation, and resource recovery in all stages of the development;
4. 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:
5. 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: -

1. Penrith Local Environment Plan 2010;
2. Penrith DCP 2014 – Part C5 – Waste Management;
3. All conditions of consent issued under the approved development application;
4. The 'Better Practice Guide for Resource Recovery in Residential Flat Buildings, published by the NSW EPA (April 2019);
5. Current industry standards and practices for the storage and collection of waste within Residential Flat Buildings; and,
6. 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 to be submitted to Penrith Council for the construction of two (2) x five (5) Residential Flat Buildings containing 133 x 1, 2, and 3 bed room units, over two (2) basement levels at 96-98 Lethbridge Street and 42-46 Evans Street, Penrith.

This WMP is dated 30 November 2020.

1.2 PROJECT & PROPERTY DESCRIPTION

PROJECT DESCRIPTION	**Two (2) x five (5) storey residential flat buildings (133 units)**
NUMBER OF UNITS	**BUILDING A (87 units)** **13 x 1 bed room units,** **60 x 2 bed room units, and,** **14 x 3 be room units.** **BUILDING B (36 units)** **1 x 1 bed room units,** **30 x 2 bed room units, and,** **15 x 3 be room units.** **Two (4) basement levels, and,** **Associated infrastructure.**
PROPERTY DESCRIPTION	**The development is to be constructed over five (5) existing Torrens Title allotments at:** **Lot 72, DP 819796, No 96 Lethbridge St,** **Lot 6, DP 519556, No 98 Lethbridge St,** **Lot 1, DP 18848, No 42 Evans St,** **Lot 2, DP 18848, No 44 Evans St, and** **Lot A, DP 3776772 and Lot 18B, DP 407961, No 46 Evans St, Penrith.**
STREET ADDRESS	**96-98 Lethbridge St and 42-46 Evans St, Penrith.**
DIMENSIONS	**Refer to Plans**
AREA	**6,860sqm**
ZONING	**Zone R4 – High-Density Residential**
PLANNING INSTRUMENTS	**Penrith Local Environment Plan 2010** **Penrith Development Control Plan 2014**

The site is located adjacent to the south-western corner of Lethbridge and Evans Street, Penrith, covering two (2) lots fronting the southern side of Lethbridge Street and three (3) lots on the eastern side of Evans Street.

The site currently occupied by five (5) single storey dwellings, one on each lot.

The land upon which the development is proposed is located approximately 500m south-east of the Penrith CBD, and a similar distance south of the western Sydney railway line. It is also within close proximity to the Nepean Hospital.

The immediate surrounding area predominantly consists of a mix of low and medium density housing, with a number of medical and educational facilities, as well as recreation areas also located nearby.

The Western Sydney Motorway is approximately 1km south.

1.3 APPLICANTS DETAILS

APPLICANT	**Freeburnville Pty Ltd** **C/- Urban Link Architects**
ADDRESS	**Level 10, 11-15 Deane Street, Burwood. NSW. 2134.**
TELEPHONE	**02 9745 2017**
E-MAIL	**Christiane@urbanlink.com.au**

1.4 PROPOSAL

The proposal involves the construction of two (2) x five (5) Residential Flat Buildings containing 133 x 1, 2, and 3 bed room units, over two (2) basement levels, comprising of :

BUILDING A (87 units)

- 13 x 1 bed room units,
- 60 x 2 bed room units, and,
- 14 x 3 be room units.

BUILDING B (36 units)

- 1 x 1 bed room units,
- 30 x 2 bed room units, and,
- 15 x 3 be room units.

Two (2) basement levels are constructed under and common to both buildings.

There are two (2) egress points to and from the building, located on both street frontages of the site.

A garbage chute has been incorporated into the building design for the reception of waste material only. All waste storage facilities areas are located in Basement 1 of the building.

All waste and recycling services to the development will be provided from within the site.

Council's waste and recycling collection contractor will provide all services.

Current structures on the site are: -

- No 96 Lethbridge Street – a single storey timber framed weatherboard dwelling with a metal roof, detached timber framed weatherboard dwelling, detached outbuilding, concrete strip driveway and paving, concrete area, meta and wire mesh fencing, rear and front yard, grassed areas, some trees, and, a number of shrubs,
- No 98 Lethbridge Street – a single storey timber framed weatherboard and brick dwelling with a tiled roof, detached garages, concrete driveway and paved area, brick, metal and timber fencing, grassed yard area, and some trees and minor miscellaneous vegetation, and,
- No 42 Evan Street – single storey brick and tile dwelling, detached timber framed weatherboard and metal roofed garage, ramp, concrete driveway and paving, front and rear yard grassed areas, a number of trees and shrubs and timber paling fencing,
- No 44 Evan Street – single storey timber framed and weatherboard dwelling with a metal roof, rear dilapidated timber deck, detached metal shed, concrete driveway and paving, front and rear yard grassed areas, and some miscellaneous vegetation, and timber fencing and brick wall at the rear, and,
- No 46 Evan Street – large irregular shaped single storey brick and metal roofed dwelling, detached outbuilding, in-ground pool, retaining wall, paved stone driveway, front and rear yard grassed areas, of, a number of trees, miscellaneous vegetation.

The project consists of: -

a) The demolition of all existing dwellings and structures over all lots,
b) The removal of all demolished materials in accordance with this WMP,
c) The excavation of the site to construct the basement levels for car parking and other services,
d) The construction of the building,
e) The provision of landscaping, open space, driveways, concrete pathways and other elements associated with the development, and,
f) The on-going use of the building.

PART 2 – DEMOLITION

2.1 DEMOLITION - GENERALLY

It is recognised that Sydney has an ever-increasing waste problem, and this practice is not sustainable. In alignment with current NSW waste management legislation, this WMP aims, where possible, to promote waste avoidance, reuse and the recycling of material, particularly during the course of demolition and construction works.

Part 2.2 on Pages 7, 8, 9, 10, 11, 12 and 13 of this WMP describes the manner in which waste is to be managed during the course of the demolition of the existing structures.

All material moved offsite shall be transported in accordance with the requirements of the Protection of the Environment Operations Act (1997).

Approved receptacles of an appropriate size will be located on site for the collection of food scraps, beverage containers, and other waste generated on site by workers.

2.2 MANAGEMENT OF HAZARDOUS WASTE MATERIALS

There may be potential for hazardous building materials to be present in the buildings to be demolished. Accordingly, the generation, storage, treatment and the disposal of hazardous waste (including asbestos) will be conducted in accordance with relevant waste legislation administered by the NSW EPA and any applicable WH&S legislation administered by Work Cover NSW

All friable and non-friable asbestos-containing material shall be handled and disposed of off-site at an EPA licensed waste facility by an EPA licensed contractor in accordance with the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 and the Waste Classifications Guidelines – Part 1 'Classifying Waste (EPA 2014) and any other instrument as amended.

All friable hazardous waste arising from the demolition process shall be removed and disposed of in accordance with the requirements of Work Cover NSW and the EPA, and with the provisions of:

a) Work Health and Safety Act 2011,
b) NSW Protection of the Environment Operations Act 1997 (NSW), and,
c) NSW Department of Environment and Climate Change Environmental Guidelines; Assessment, Classification and Management of Liquide and Non-Liquid Wastes.

2.3 DEMOLITION – RECYCLING, REUSE & DISPOSAL DETAILS

In accordance with the provisions of Part 5.1 (A) (5) of Councils DCP (page C5-5), this WMP provides details of the manner in which, all material involved in the demolition of the building will be dealt with, and includes: -

a) An estimate of the types and volumes of waste and recyclables to be generated;
b) How waste and recyclables will be will be stored and treated on site; and,
c) How the residual non-reusable or non-recyclable wastes and recyclable are to be disposed of.

The WMP will also quantify how excavated and demolition waste materials will be reused, and, or recycled and where residual wastes will be disposed (see below), as well as the total percentage of demolition waste that will be reused or recycled.

It is noted that the quantities of materials detailed in this part (Part 2.2) are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of site constraints, weather conditions, and any other unforeseeable activities associated with the demolition works, which are beyond the control of the developer, including but not being limited to theft, accidents, and, or, other acts of misadventure.

Notwithstanding any of the above, the developer will provide Council with all details in relation to any major variations in this regard.

1. Excavated Materials & Overburden

Volume / Weight	2,300 cubic metres / 3,910 Tonnes
On Site Reuse	No. All excavated material will be removed from the site and transported and disposed of to an approved landfill site.
Percentage Reused or Recycled	To be determined
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646).

2. Green Waste

Volume / Weight	760 cubic metres / 114 Tonnes
On Site Reuse	To be separated. Chipped and stored on site for re-use in landscaping.
Percentage Reused or Recycled	90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646).

3. Bricks

Volume / Weight	250 cubic metres / 250 Tonnes
On Site Reuse	Nil – all bricks will be processed off-site
Percentage Reused or Recycled	75% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646).

4. Concrete

Volume / Weight	180 cubic metres / 432 Tonnes
On Site Reuse	No. All excavated material will be removed from the site and transported and disposed of to an approved landfill site.
Percentage Reused or Recycled	75% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646).

5. Timber

Volume / Weight	155 cubic metres / 62 Tonnes
On Site Reuse	Re-use for formwork and studwork, landscaping, shoring.
Percentage Reused or Recycled	65% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646).

6. Plasterboard & Fibro

Volume / Weight	120 cubic metres / 45 Tonnes
On Site Reuse	Nil – all to be disposed of off-site.
Percentage Reused or Recycled	To be determined (dependent on asbestos content)
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544
Off Site Destination (Asbestos)	or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Suez Recycling Centre, 1725 Elizabeth Drive, Kemps Creek Tel 1300 651 116.

7. Metals / Steel / Guttering & Downpipes

Volume / Weight	125 cubic metres / 40 Tonnes
On Site Reuse	No
Percentage Reused or Recycle	60% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Suez Recycling Centre, 1725 Elizabeth Drive, Kemps Creek Tel 1300 651 116.

8. Roof Tiles / Tiles

Volume / Weight	45 cubic metres / 45 Tonnes
On Site Reuse	No. All excavated material will be removed from the site and transported and disposed of to an approved landfill site.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112.

9. Fixture & Fittings (Doors Fittings, Other Fixtures, etc)

Volume	150 cubic metres / 50 Tonnes
On Site Reuse	No. All excavated material will be removed from the site and transported and disposed of to an approved landfill site.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Suez Recycling Centre, 1725 Elizabeth Drive, Kemps Creek Tel 1300 651 116.

10. Glass, Electrical & Light Fittings, PC items, Ceramics, etc

Volume / Weight	180 cubic metres / 650 Tonnes
On Site Reuse	No
Percentage Reused or Recycle	To be determined (dependent upon nature of material)
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Suez Recycling Centre, 1725 Elizabeth Drive, Kemps Creek Tel 1300 651 116.

11. Residual Waste

Volume / Weight	350 cubic metres / 350 Tonnes
On Site Reuse	No
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Other approved Facility.
Notes on calculation of volume of residual waste	1. In calculating the amount of residual waste produced from the demolition of all buildings on site, it is estimated that approximately 10% of it, will be residual waste. 2. As all of the materials vary in weight per volume, a figure of 1 cubic metre of material is equal to 1 tonne in weight has been used.

The facilities and agencies that have been nominated to receive the materials listed above have been identified within the NSW waste industry as being a facility or agency that will accept the materials specified in each respective table.

The developer understands that any costs associated with the transportation and receival of these materials will be their responsibility.

The developer is under no obligation to use any nominated facility or agency, but should any alternative arrangements be made, it will be the developers' responsibility to ensure that all demolished materials removed from the site are disposed of, or processed, appropriately.

In accordance with the requirements of Council and the approved development consent, the approved WMP must be implemented on-site and adhered to with supporting documentation. In this regard, the developer will keep a written record of all documentation associated with the transportation, disposal and processing of all materials associated with the demolition of all structures on site.

2.5 DEMOLITION – ON SITE STORAGE OF MATERIALS

During the demolition stage of the project, an area will be set aside on the site as a compound for the on-site storage of materials prior to their removal from the site. This compound will provide for: -

a) Material sorting;
b) Segregation of materials that may be hazardous and which will be required to be disposed of;
c) Recovery equipment, such as concrete crushers, chippers, and skip bins;
d) Material storage; and,
e) Access for transport equipment.

Appropriate vehicular access will be provided on and off site, and to the compound, to enable the efficient removal of reusable, recyclable, and waste materials.

Prior to the commencement of demolition works, the developer will provide Council with a 'Site Plan for the On-Site Storage of Materials at Demolition'. This plan will show in detail the location of each area within the compound, set aside for the segregated storage of all materials involved in the demolition of all buildings on the site.

2.6 DEMOLITION – EXCAVATED MATERIAL

All excavated material removed from the site, as a result of the demolition of all buildings, must be classified in accordance with the Department of Environment, Climate Change and Water NSW Waste Classification Guidelines prior to their removal, transportation and disposal to an approved waste management facility.

All excavated material and other wastes generated as a result of the development are to be reused, recycled or disposed of, in accordance with this Waste Management Plan in accordance with Condition 14 of the approved DA consent.

All relevant details must be reported to the PCA.

PART 3 – CONSTRUCTION

3.1 CONSTRUCTION – GENERALLY

Upon completion of all demolition works, construction of the building will commence with the excavation of the site for the basement levels of the building. All materials sourced from these activities will be disposed of in accordance with the information provided in Part 3.2 on pages 14, 15, 16, 17, 18 and 19 of this WMP.

Additionally, all materials used in the construction of the building that are not required to be incorporated into it, shall be recycled, reused or disposed of in accordance with these provisions, and the requirements of the Protection of the Environment Operations Act (1997). It will be the developer's overall responsibility to ensure compliance in this regard.

Mobile Bins of an appropriate size will be located on site for the collection of food scraps, beverage containers, and other waste generated on site by workers.

3.2 CONSTRUCTION – RECYCLING, REUSE & DISPOSAL DETAILS

The following details prescribe the manner in which all materials surplus to the construction of the building will be dealt with, and includes: -

a) An estimate of the types and volumes of waste and recyclables to be generated;
b) A site plan showing sorting and storage areas for construction waste and vehicle access to these areas (see Part 3.3 of this Plan);
c) How excavated and other materials surplus to construction will be reused or recycled and where residual wastes will be disposed (see below); and,
d) The total percentage of waste surplus to construction to be reused or recycled.

1. Excavated Materials

Volume / Weight	40,000 cubic metres / 68,000 Tonnes
On Site Reuse	No. All excavated material will be removed from the site and transported and disposed of to an approved landfill site.
Percentage Reused or Recycled	To be determined (see above comments)
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Other approved Facility.

2. Bricks

Volume / Weight	5 cubic metres / 6.5 Tonnes
On Site Reuse	Nil – all bricks will be processed off-site
Percentage Reused or Recycle	75% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Other approved Facility.

3. Concrete

Volume / Weight	5 cubic metres / 12 Tonnes
On Site Reuse	Existing driveway to be retained during construction. Crushed and used as aggregate, drainage backfill.
Percentage Reused or Recycled	60% - 75%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Other approved Facility.

4. Timber

Volume / Weight	5 cubic metres / 7 Tonnes
On Site Reuse	Re-use for formwork and studwork, and for landscaping
Percentage Reused or Recycled	65% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112.

5. Plasterboard & Fibro

Volume / Weight	6 cubic metres / 3 Tonnes
On Site Reuse	No. All excavated material will be removed from the site and transported and disposed of to an approved landfill site.
Percentage Reused or Recycled	To be determined
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Suez Recycling Centre, 1725 Elizabeth Drive, Kemps Creek Tel 1300 651 116.Ecocycle, 155 Newtown Road, Wetherill Park

6. Metals / Steel / Guttering & Downpipes

Volume / Weight	5 cubic metres / 1.25 Tonnes
On Site Reuse	No
Percentage Reused or Recycled	60 – 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Suez Recycling Centre, 1725 Elizabeth Drive, Kemps Creek Tel 1300 651 116.

7. Roof Tiles / Tiles

Volume / Weight	5 cubic metres / 3.75 Tonnes
On Site Reuse	No. All excavated material will be removed from the site and transported and disposed of to an approved landfill site.
Percentage Reused or Recycled	80% - 90%
Off Site Destination	Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Suez Recycling Centre, 1725 Elizabeth Drive, Kemps Creek Tel 1300 651 116.

8. Plastics

Volume / Weight	6 cubic metres / 1 Tonne
On Site Reuse	Nil
Percentage Recycled	80% - 95%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Suez Recycling Centre, 1725 Elizabeth Drive, Kemps Creek Tel 1300 651 116.

9. Glass, Electrical & Light Fittings, PC items

Volume / Weight	5 cubic metres / 1.5 Tonne
On Site Reuse	No
Percentage Reused or Recycled	70% - 90%
Off Site Destination	To an approved agency, or agencies.

10. Fixture & Fittings (Doors Fittings, Other Fixtures, etc)

Volume	12.5 cubic metres / 4 Tonnes
On Site Reuse	No. All excavated material will be removed from the site and transported and disposed of to an approved landfill site.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Suez Recycling Centre, 1725 Elizabeth Drive, Kemps Creek Tel 1300 651 116.

11. Pallets

Volume / Weight	50 cubic metres / 8 Tonne
On Site Reuse	No
Percentage Reused or Recycle	90% - 100%
Off Site Destination	To an approved agency, or agencies, for reuse and resale.

12. Residual Waste

Volume / Weight	4,200 cubic metres / 4,200 Tonnes
On Site Reuse	No
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, other authorised facility
Notes on calculation of volume of residual waste	1. In calculating the amount of residual waste produced from the demolition of all buildings on site, it is estimated that approximately 10% of it, will be residual waste. 2. As all of the materials vary in weight per volume, a figure of 1 cubic metre of material is equal to 1 tonne in weight has been used.

It is noted that the quantities of materials detailed in this section (Part 3.2) are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of construction constraints, weather conditions, and any other unforeseeable activities associated with the construction of the buildings, which are beyond the control of the developer, including but not being limited to theft, accidents, and other acts of misadventure.

Notwithstanding any of the above, the developer will provide Council with all details in relation to any major variations in this regard.

The developer will keep a record of all documentation associated with the transportation, disposal and processing of all materials surplus to the construction of the building.

Should any of the facilities nominated above, for any reason be unable to accommodate the receipt of these materials, the developer will be responsible for making alternative arrangements that will ensure that all materials, excess to construction requirements, that are removed from the site are disposed of, or processed, appropriately.

Additionally, during the construction of the building, every effort will be made to reduce and minimise the amount of building materials excess to its construction.

3.3 CONSTRUCTION – ON SITE STORAGE OF MATERIALS

During the construction of the buildings, an area will be set aside on the site as a compound for the on-site storage of materials prior to their removal from the site. This compound will provide for: -

f) Material sorting;
g) Segregation of materials that may be hazardous and which will be required to be disposed of;
h) Recovery equipment, such as concrete crushers, chippers, and skip bins;
i) Material storage; and,
j) Access for transport equipment.

Appropriate vehicular access will be provided on and off site, and to the compound, to enable the efficient removal of reusable, recyclables, and waste materials.

Prior to the commencement of construction works, the developer will provide Council with a 'Site Plan for the On-Site Storage of Materials at Construction'. This plan will show in detail the location of each area within the compound, set aside for the segregated storage of all materials involved in the demolition of all buildings on the site.

3.4 CONSTRUCTION – EXCAVATED MATERIAL

All excavated material removed from the site, as a result of any activities associated with the construction of the building, must be classified in accordance with the Department of Environment, Climate Change and Water NSW Waste Classification Guidelines prior to removal, transportation and disposal to an approved waste management facility.

All relevant details must be reported to the PCA.

PART 4 – GARBAGE CHUTE SYSTEM

4.1 DESIGN REQUIREMENTS

A linear Garbage Chute System, for the reception of both waste and recycling material emanating from the occupation and use of all units, will be incorporated into the building design.

The development comprises of two separate buildings or towers:

- Building A – fronts Evan Street and is a six (6) storey building containing 87 x 1, 2 and 3 bed room units,
- Building B – fronts Lethbridge Street and is a five (5) storey building containing 46 x 1, 2 and 3 bed room units.

Each Garbage Chute System will contain two (2) separate chutes: -

- one for the reception and transfer of waste; and,
- one for the reception and transfer of recyclables.

There will be a total of four (4) dual chute systems, one for each core of the two (2) buildings:

- Building A West – Bin Chute Room A1,
- Building A East – Bin Chute Room A2,
- Building B North – Bin Chute Room B1, and,
- Building B South – Bin Chute Room B2.

All waste deposited into the waste chutes will discharge into 1100 mobile bins placed onto a two (2) bin mechanically operated linear track system in the respective bin/chute room in located in Basement 2 as indicated on the Architectural Drawings.

All recyclable material deposited into the recycling chutes will discharge into 1100 mobile bins placed onto a two (2) bin mechanically operated linear track system in the respective bin/chute room in located in Basement 2 as indicated on the Architectural Drawings.

Each chute will be located adjacent to one another in a ‘Chute Compartment’. Chute compartments will be located on each residential floor of the building.

At a minimum each Garbage and Recycling 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 waste chute will terminate in Bin Room 1 located in Basement 1 and discharge all waste into an 1100-litre receptacle placed onto the 2 Bin Linear track system.
5. The recycling chute will terminate in Bin Room 1 located in Basement 1 and discharge all recyclable material into an 1100-litre receptacle placed onto the 2 Bin Linear track system.

6. The Chute and service openings must be capable of being easily cleaned.
7. Chutes must be ventilated to ensure that air does not flow from the chute through any service opening.
8. 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).
9. All Linear Bin Systems will be designed, manufactured and installed in accordance with relevant Australian Standards and to manufacturers specifications.

4.2 CHUTE SYSTEM A1 – BUILDING A WEST

A 'Chute Compartment' is provided to each residential floor level of Building A1 West. Each chute compartment is located off the North-to-South Lobby of Building A West, on the northern side of the lift and fire stairs.

The two (2) chutes will be installed in a fire rated chute compartment. Each chute will be fire separated in accordance with the relative provisions of the BCA.

4.2.1 – Waste Chute

Residents will deposit waste material into the chute inlet hopper, labelled 'Waste Chute – Reception of Garbage Only'. Waste from the chute outlet will fall directly into the middle bin on a 3 x 1100 litre mobile waste bin linear track system located under the Waste Chute Outlet in Bin/Chute Room A1 which is located in Basement 2 as indicated on the Architectural Drawings.

Based on Council's waste generation rates (61.2-litres of space per unit per week), it is anticipated that the 44 units in this core will generate 2,692.80 litres of waste per week, or 384.69 litres per day.

The capacity of the two (2) full 1100-litre bins on the track system is 2,200-litres. The bin/chute room will be inspected at least once every three (3) days in order to ensure that waste receptacles will be removed when full.

Representatives of the Owners Corporation will monitor all activities associated with the use and operation of the chute system, the depositing of waste into it, and the operation of the linear track system, in order to ensure that there will be no spillage as a result of these activities, and that the system operates effectively.

Representatives of the Owners Corporation will be responsible for transferring full 1100-litre waste bins from the Bin/Chute Room, into the Bin Storage Room located at the north-western side of Basement 2.

4.2.2 – Recycling Chute

Residents will deposit waste material into the chute inlet hopper, labelled 'Recycling Chute – Reception of Recycling Material Only'. Recycling material from the chute outlet will fall directly into the middle bin on a 3 x 1100 litre mobile recycling bin linear track system located under the Recycling Chute Outlet in Bin/Chute Room A1 which is located in Basement 2 as indicated on the Architectural Drawings.

Based on Council's recycling generation rates (61.2-litres of space per unit per week), it is anticipated that the 44 units in this core will generate 2,692.80 litres of recycling material per week, or 384.69 litres per day.

The capacity of the two (2) full 1100-litre bins on the track system is 2,200-litres. The bin/chute room will be inspected at least once every three (3) days in order to ensure that recycling receptacles will be removed when full.

Representatives of the Owners Corporation will monitor all activities associated with the use and operation of the chute system, the depositing of recycling material into it, and the operation of the linear track system, in order to ensure that there will be no spillage as a result of these activities, and that the system operates effectively.

Representatives of the Owners Corporation will be responsible for transferring full 1100-litre recycling bins from the Bin/Chute Room, into the Bin Storage Room located at the north-western side of Basement 2.

4.3 CHUTE SYSTEM A2 – BUILDING A EAST

A 'Chute Compartment' is provided to each residential floor level of Building A2 East. Each chute compartment is located off the North-to-South Lobby of Building A East, on the northern side of the lift and fire stairs.

The two (2) chutes will be installed in a fire rated chute compartment. Each chute will be fire separated in accordance with the relative provisions of the BCA.

4.3.1 – Waste Chute

Residents will deposit waste material into the chute inlet hopper, labelled 'Waste Chute – Reception of Garbage Only'. Waste from the chute outlet will fall directly into the middle bin on a 3 x 1100 litre mobile waste bin linear track system located under the Waste Chute Outlet in Bin/Chute Room A2 which is located in Basement 2 as indicated on the Architectural Drawings.

Based on Council's waste generation rates (61.2-litres of space per unit per week), it is anticipated that the 43 units in this core will generate 2,632.60 litres of waste per week, or 375.95 litres per day.

The capacity of the two (2) full 1100-litre bins on the track system is 2,200-litres. The bin/chute room will be inspected at least once every three (3) days in order to ensure that waste receptacles will be removed when full.

Representatives of the Owners Corporation will monitor all activities associated with the use and operation of the chute system, the depositing of waste into it, and the operation of the linear track system, in order to ensure that there will be no spillage as a result of these activities, and that the system operates effectively.

Representatives of the Owners Corporation will be responsible for transferring full 1100-litre waste bins from the Bin/Chute Room, into the Bin Storage Room located at the north-western side of Basement 2.

4.3.2 – Recycling Chute

Residents will deposit waste material into the chute inlet hopper, labelled 'Recycling Chute – Reception of Recycling Material Only'. Recycling material from the chute

outlet will fall directly into the middle bin on a 3 x 1100 litre mobile recycling bin linear track system located under the Recycling Chute Outlet in Bin/Chute Room A2 which is located in Basement 2 as indicated on the Architectural Drawings.

Based on Council's recycling generation rates (61.2-litres of space per unit per week), it is anticipated that the 43 units in this core will generate 2,632.60 litres of recycling material per week, or 375.95 litres per day.

The capacity of the two (2) full 1100-litre bins on the track system is 2,200-litres. The bin/chute room will be inspected at least once every three (3) days in order to ensure that recycling receptacles will be removed when full.

Representatives of the Owners Corporation will monitor all activities associated with the use and operation of the chute system, the depositing of recycling material into it, and the operation of the linear track system, in order to ensure that there will be no spillage as a result of these activities, and that the system operates effectively.

Representatives of the Owners Corporation will be responsible for transferring full 1100-litre recycling bins from the Bin/Chute Room, into the Bin Storage Room located at the north-western side of Basement 2.

4.4 CHUTE SYSTEM B1 – BUILDING B NORTH

A 'Chute Compartment' is provided to each residential floor level of Building B1 North. Each chute compartment is located off the West-to-East Lobby of Building B North, on the eastern side of the fire stairs and opposite the lift.

The two (2) chutes will be installed in a fire rated chute compartment. Each chute will be fire separated in accordance with the relative provisions of the BCA.

4.4.1 – Waste Chute

Residents will deposit waste material into the chute inlet hopper, labelled 'Waste Chute – Reception of Garbage Only'. Waste from the chute outlet will fall directly into the middle bin on a 3 x 1100 litre mobile waste bin linear track system located under the Waste Chute Outlet in Bin/Chute Room B1 which is located in Basement 2 as indicated on the Architectural Drawings.

Based on Council's waste generation rates (61.2-litres of space per unit per week), it is anticipated that the 23 units in this core will generate 1,407.60 litres of waste per week, or 201.09 litres per day.

The capacity of the two (2) full 1100-litre bins on the track system is 2,200-litres. The bin/chute room will be inspected at least once every three (3) days in order to ensure that waste receptacles will be removed when full.

Representatives of the Owners Corporation will monitor all activities associated with the use and operation of the chute system, the depositing of waste into it, and the operation of the linear track system, in order to ensure that there will be no spillage as a result of these activities, and that the system operates effectively.

Representatives of the Owners Corporation will be responsible for transferring full 1100-litre waste bins from the Bin/Chute Room, into the Bin Storage Room located at the north-western side of Basement 2.

4.4.2 – Recycling Chute

Residents will deposit waste material into the chute inlet hopper, labelled 'Recycling Chute – Reception of Recycling Material Only'. Recycling material from the chute outlet will fall directly into the middle bin on a 3 x 1100 litre mobile recycling bin linear track system located under the Recycling Chute Outlet in Bin/Chute Room B1 which is located in Basement 2 as indicated on the Architectural Drawings.

Based on Council's recycling generation rates (61.2-litres of space per unit per week), it is anticipated that the 23 units in this core will generate 1,407.60 litres of recycling material per week, or 201.09 litres per day.

The capacity of the two (2) full 1100-litre bins on the track system is 2,200-litres. The bin/chute room will be inspected at least once every three (3) days in order to ensure that recycling receptacles will be removed when full.

Representatives of the Owners Corporation will monitor all activities associated with the use and operation of the chute system, the depositing of recycling material into it, and the operation of the linear track system, in order to ensure that there will be no spillage as a result of these activities, and that the system operates effectively.

Representatives of the Owners Corporation will be responsible for transferring full 1100-litre recycling bins from the Bin/Chute Room, into the Bin Storage Room located at the north-western side of Basement 2.

4.5 CHUTE SYSTEM B2 – BUILDING B SOUTH

A 'Chute Compartment' is provided to each residential floor level of Building B2 South. Each chute compartment is located off the West-to-East Lobby of Building B South, on the eastern side of the fire stairs and opposite the lift.

The two (2) chutes will be installed in a fire rated chute compartment. Each chute will be fire separated in accordance with the relative provisions of the BCA.

4.4.1 – Waste Chute

Residents will deposit waste material into the chute inlet hopper, labelled 'Waste Chute – Reception of Garbage Only'. Waste from the chute outlet will fall directly into the middle bin on a 3 x 1100 litre mobile waste bin linear track system located under the Waste Chute Outlet in Bin/Chute Room B2 which is located in Basement 2 as indicated on the Architectural Drawings.

Based on Council's waste generation rates (61.2-litres of space per unit per week), it is anticipated that the 23 units in this core will generate 1,407.60 litres of waste per week, or 201.09 litres per day.

The capacity of the two (2) full 1100-litre bins on the track system is 2,200-litres. The bin/chute room will be inspected at least once every three (3) days in order to ensure that waste receptacles will be removed when full.

Representatives of the Owners Corporation will monitor all activities associated with the use and operation of the chute system, the depositing of waste into it, and the operation of the linear track system, in order to ensure that there will be no spillage as a result of these activities, and that the system operates effectively.

Representatives of the Owners Corporation will be responsible for transferring full 1100-litre waste bins from the Bin/Chute Room, into the Bin Storage Room located at the north-western side of Basement 2.

4.4.2 – Recycling Chute

Residents will deposit waste material into the chute inlet hopper, labelled 'Recycling Chute – Reception of Recycling Material Only'. Recycling material from the chute outlet will fall directly into the middle bin on a 3 x 1100 litre mobile recycling bin linear track system located under the Recycling Chute Outlet in Bin/Chute Room B2 which is located in Basement 2 as indicated on the Architectural Drawings.

Based on Council's recycling generation rates (61.2-litres of space per unit per week), it is anticipated that the 23 units in this core will generate 1,407.60 litres of recycling material per week, or 201.09 litres per day.

The capacity of the two (2) full 1100-litre bins on the track system is 2,200-litres. The bin/chute room will be inspected at least once every three (3) days in order to ensure that recycling receptacles will be removed when full.

Representatives of the Owners Corporation will monitor all activities associated with the use and operation of the chute system, the depositing of recycling material into it, and the operation of the linear track system, in order to ensure that there will be no spillage as a result of these activities, and that the system operates effectively.

Representatives of the Owners Corporation will be responsible for transferring full 1100-litre recycling bins from the Bin/Chute Room, into the Bin Storage Room located at the north-western side of Basement 2.

4.6 LINEAR BIN TRACK SYSTEM

The Linear Track System is to be designed, manufactured and installed strictly in accordance with applicable Australian Standards and to manufacturers specifications. The system s are to be monitored and serviced on a regular basis.

Any breakdowns or system malfunctions are to be attended to and addressed immediately. In the event of any system breakdown, the Owners Corporation shall make immediate alternative arrangements to ensure that there is no disruption to the provision of scheduled waste and recycling services, and that any spillage from the bins is removed and cleaned up immediately.

As required by the provisions of Section 3.5.2 of Council's 'Residential Flat Building Waste Management Guideline', sufficient space is provided around the linear tracks (900mm on the sides and 1.8m at the end) to allow for maintenance of the system and the movement of bins on and off the tracks.

4.7 ON GOING MANAGEMENT & MAINTENANCE OF CHUTE SYSTEM

4.7.1 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: -

1. Displaying signage indicating appropriate use of all waste management systems, including what is and what is not recyclable.
2. Educating residents in the correct use of the chute, and the need to keep bulky items out of the chute systems.
3. Providing regular maintenance, including cleaning and unblocking chutes.
4. 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.
5. 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.

4.7.2 Chute Room Infrastructure

In accordance with Council requirements, the following infrastructure will be incorporated into the design of all chute 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. The room will be fully enclosed and roofed with a minimum internal room height in accordance with the BCA 2016
6. The room is 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 to meet the requirements of the BCA 2016.

PART 5 – ON GOING USE OF BUILDING

5.1 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.

5.2 ASSUMPTIONS

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

1. The proposal involves the construction of two (2) x five (5) Residential Flat Buildings containing 133 x 1, 2, and 3 bed room units, over two (2) basement levels.
2. The buildings are known as Building A and B, and each building is separated into two (2) cores.
3. Building A is a six (6) storey building with a frontage to Evan Street located on the southern side of the site he containing 87 units, comprising of:

a) 13 x 1 bed room units,
b) 60 x 2 bed room units, and,
c) 14 x 3 be room units.

4. Building B is a five (5) storey building with a frontage to Lethbridge Street located on the northern side of the site and contains 36 units, comprising of:

d) 1 x 1 bed room units,
e) 30 x 2 bed room units, and,
f) 15 x 3 be room units.

5. A Garbage Chute System will be incorporated into the development.
6. The chutes will be dual chutes for the reception of both waste and recyclables.
7. As both buildings are separated into two (2) cores, there will be four dual chute systems in total.
8. Waste and Recycling Chute Compartments will be provided to all cores on all residential levels for the use of residents to deposit both waste (into the garbage chute) and recyclable material (into the recycling chute).
9. All waste material deposited into the chutes will discharge into the middle waste bins located on a 3 x 1100-litre mobile bin Linear track system, installed within the respective Bin/Chute Rooms in Basement 2 of the buildings, as indicated on the Architectural Drawings.
10. All recycling material deposited into the chutes will discharge into the middle recycling bin located on a 3 x 1100-litre mobile bin Linear track system, installed within the respective Bin/Chute Rooms in Basement 2 of the buildings, as indicated on the Architectural Drawings.
11. In order to meet Council's servicing requirements, all waste will be stored in 8 x 1100-litre mobile bins.
12. In order to meet Council's servicing requirements, all recycling will be stored in 8 x 1100-litre mobile bins.
13. All waste services will be provided weekly.
14. All recycling services will be provided weekly.

15. The number and size of bins have been calculated from information provided by Penrith City Council, by Council staff and from information Penrith City Council's Residential Flat Building Developments Waste Management Guidelines Part 3.4 'Waste Generation Rate Calculations for 1100-litre Bin Allocation – Page 12'.
16. Prior to servicing all full waste and recycling bins will be transferred from each of the respective bin/chute rooms to the temporary Bin Storage Room where they will be stored ready for servicing.
17. The Bin Storage Room is located on the north-western side of Basement 2 (under Building B).
18. All waste and recycling collections will take place from the dedicated loading bay in the form of a 14.0m diameter truck turntable.
19. Penrith City Council will provide all waste and recycling services to the development.
20. The Owners Corporation will appoint a Building Manager or Caretaker who will be responsible for the management and maintenance of all activities associated with the storage and collection of waste and recycling.

5.3 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.

5.4 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 building. All green waste will be disposed of privately by a contractor to be appointed by the Owners Corporation.

It will be the responsibility of the Owners Corporation to ensure that all green waste is removed from the complex in an appropriate manner.

5.5 WASTE & RECYCLING – SERVICE ARRANGEMENTS

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

- Waste – 18 dwellings (units) or 61.2-litres of bin space per unit per week; and,
- Recycling – 18 dwellings (units) or 61.2-litres of bin space per unit per week.

All waste and recycling generation rates were obtained from discussions with and advice from Council staff, and from information contained in Penrith City Council's

Residential Flat Building Developments Waste Management Guidelines Part 3.4 ‘Waste Generation Rate Calculations for 1100-litre Bin Allocation – Page 12’.

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	133	61.2	8,138.6	1100	1	7.40	8
Recycling	133	61.2	8,138.6	1100	1	7.40	8

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 SERVICING ARRANGEMENTS

WASTE	RECYCLING
8 x 1100-litre bins Service one (1) day per Week	8 x 1100-litre bins Serviced one (1) day per Week

5.6 PROVISION OF WASTE & RECYCLING SERVICES

5.6.1 Waste and Recycling Collection Service Provider Details

Penrith City Council's waste and recycling contractors will provide all waste and recycling services to the building.

5.6.2 Bin Assignment Arrangements & 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)
1100 litre mobile container	1.470	1.070	1.240

In order to satisfy Council's requirements in terms of the assignment of bins to the development, the following arrangements will be made: -

1. Waste Bins – in addition to the 8 x 1100 litre mobile waste bins required by Council as part of their service requirements, the Owners Corporation will provide an additional number of 1100 litre mobile waste bins in order to ensure that a bin is provided at all times below the Waste Garbage Chute Outlet, and,
2. Recycling Bins – in addition to the 8 x 1100-litre mobile recycling waste bins required by Council as part of their service requirements, the Owners Corporation will provide an additional number of 1100 litre mobile waste bins in order to ensure that a bin is provided at all times below the Recycling Chute Outlet.

5.6.3 Waste & Recycling Requirements

Waste and recycling requirements are provided in the table below.

SERVICE	NUMBER OF CONTAINERS	COLLECTION FREQUENCY
Waste Service	8 x 1100- litre mobile containers	Weekly
Recycling Service	8 x 1100-litre mobile containers	Weekly

5.6.4 Location, Design, and Construction of Waste Storage and Collection Areas

Details of all storage and collection areas are provided below.

5.6.4.1 Chute Compartments

Waste and recycling Chute Compartments are provided on all residential floor levels of the building. Each compartment will have dimensions of 2.0m x 1.0m, with a floor area of 2.0 square metres, and will provide space for: -

- Garbage Chute compartment, which will have internal dimensions of 750 mm x 750 mm. The Garbage Chute will be installed within these confines in a fire rated compartment; and,
- Recycling Chute compartment, which will have internal dimensions of 750 mm x 750 mm. The Garbage Chute will be installed within these confines in a fire rated compartment.

Residents will deposit waste into the garbage chute and recyclable material into the recycling chute.

5.6.4.2 Bin Room/Chute Room 1 (A1 West)

Bin Room 1 is located on the western side of Basement 2 next to Lift 2, as indicated on the Architectural Drawings. Within its confines is a Garbage Chute Outlet Compartment for the reception of all waste and recycling material derived from the dual chute system in this core of the building.

All waste material deposited into the chutes will discharge into the middle bin of a 3 x 1100-litre mobile bin linear track system.

All recycling material deposited into the chutes will discharge into the middle bin of a 3 x 1100-litre mobile linear track system.

Within the confines of the room will be areas for: -

- The waste and recycling chute outlets,
- 3 x 1100-litre bin linear track systems for the waste bins,
- 3 x 1100-litre bin linear track systems for the recycling bins, and,
- Appropriate infrastructure.

According to the architectural drawings the size and design of Bin/Chute Room 1 is a fully enclosed rectangular structure, measuring 6.8m x 5.0m, with an area of approximately 34 square metres

As required by the provisions of Section 3.5.2 of Council's 'Residential Flat Building Waste Management Guideline', sufficient space is provided around the tracks (900mm on the sides and 1.8m at the end) to allow for maintenance of the system and the movement of bins on and off the tracks.

5.6.4.3 Bin Room/Chute Room 2 (A2 East)

Bin Room 2 is located on the eastern side of Basement 2 next to Fire Stair 1 and Lift 1, as indicated on the Architectural Drawings. Within its confines is a Garbage Chute Outlet Compartment for the reception of all waste and recycling material derived from the dual chute system in this core of the building.

All waste material deposited into the chutes will discharge into the middle bin of a 3 x 1100-litre mobile bin linear track system.

All recycling material deposited into the chutes will discharge into the middle bin of a 3 x 1100-litre mobile linear track system.

Within the confines of the room will be areas for: -

- The waste and recycling chute outlets,
- 3 x 1100-litre bin linear track systems for the waste bins,
- 3 x 1100-litre bin linear track systems for the recycling bins, and,
- Appropriate infrastructure.

According to the architectural drawings the size and design of Bin/Chute Room 2 is a fully enclosed mainly rectangular structure, with an area of approximately 34 square metres.

As required by the provisions of Section 3.5.2 of Council's 'Residential Flat Building Waste Management Guideline', sufficient space is provided around the tracks (900mm

on the sides and 1.8m at the end) to allow for maintenance of the system and the movement of bins on and off the tracks.

5.6.4.4 Bin Room/Chute Room 3 (B1 North)

Bin Room 3 is located on the north-eastern side of Basement 2 adjacent to Fire Stair 4 and Lift 4, as indicated on the Architectural Drawings. Within its confines is a Garbage Chute Outlet Compartment for the reception of all waste and recycling material derived from the dual chute system in this core of the building.

All waste material deposited into the chutes will discharge into the middle bin of a 3 x 1100-litre mobile bin linear track system.

All recycling material deposited into the chutes will discharge into the middle bin of a 3 x 1100-litre mobile linear track system.

Within the confines of the room will be areas for: -

- The waste and recycling chute outlets,
- 3 x 1100-litre bin linear track systems for the waste bins,
- 3 x 1100-litre bin linear track systems for the recycling bins, and,
- Appropriate infrastructure.

According to the architectural drawings the size and design of Bin/Chute Room is fully enclosed rectangular structure, measuring 6.53m x 5.15m, with an area of approximately 34 square metres

As required by the provisions of Section 3.5.2 of Council's 'Residential Flat Building Waste Management Guideline', sufficient space is provided around the tracks (900mm on the sides and 1.8m at the end) to allow for maintenance of the system and the movement of bins on and off the tracks.

5.6.4.5 Bin Room/Chute Room 4 (B2 South)

Bin Room 1 is located on the north-eastern side of Basement 2 adjacent to Fire Stair 3 and Lift 3, as indicated on the Architectural Drawings. Within its confines is a Garbage Chute Outlet Compartment for the reception of all waste and recycling material derived from the dual chute system in this core of the building.

All waste material deposited into the chutes will discharge into the middle bin of a 3 x 1100-litre mobile bin linear track system.

All recycling material deposited into the chutes will discharge into the middle bin of a 3 x 1100-litre mobile linear track system.

Within the confines of the room will be areas for: -

- The waste and recycling chute outlets,
- 3 x 1100-litre bin linear track systems for the waste bins,
- 3 x 1100-litre bin linear track systems for the recycling bins, and,
- Appropriate infrastructure.

According to the architectural drawings the size and design of Bin/Chute Room is fully enclosed rectangular structure, measuring 6.40m x 5.05m, with an area of approximately 34 square metres

As required by the provisions of Section 3.5.2 of Council's 'Residential Flat Building Waste Management Guideline', sufficient space is provided around the tracks (900mm on the sides and 1.8m at the end) to allow for maintenance of the system and the movement of bins on and off the tracks.

5.6.4.6 Bin Storage Area

All full waste and recycling bins waste will be removed from the respective bin/chute rooms to a temporary bin storage area prior to collection.

The bin storage area is located on the north-western wall of Basement 2 as indicated on the Architectural Drawings. It is a fully enclosed rectangular structure measuring 12.00 x 4.85m, with an area of approximately 58sqm. It will provide storage space for 8 x 1100-litre waste bins and 8 x 1100-litre recycling bins required for collection by Council.

All bins will be transported from the respective bin/chute rooms to the bin storage area by a Mobile Bin Towing Device (MBTD) and trailer. The MBTD 1 will be stored in a separate area adjacent to the bin storage area as indicated on the Architectural Drawings.

All bins will be stored in a manner that will facilitate collections and allow the bins to be removed from the area and returned to it, in a healthy, safe, and convenient manner.

5.6.4.7 Waste Collection Area / Truck Turntable

All waste and recycling bins will be serviced from a 14.48m diameter truck turntable located in Basement 2 adjacent to the Bin Storage Area.

The collection area has been designed to ensure that collection vehicles can enter and leave the site in a forward direction.

The collection area has been designed to accommodate Council's Low Entry Heavy Rigid Waste Collection Vehicle with the following dimensions:

- Operational Length – 11.7m;
- Design Width – 2.8m;Operational Height – 3.1m; and,
- Swept Circle – 17.0m.

In assessing the size and design of each area of this area, it is considered that it is of a sufficient size and dimension to adequately store and manoeuvre (for collection and return) all of the required number of bins and ancillary facilities.

All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.

Natural and mechanical ventilation will be required to be installed within each Garbage Room in accordance with the relative provisions of the Building Code of Australia.

All collection and servicing activities will take place wholly within the confines of the collection area from a designated collection point, where all waste and recycling bins will be removed from the adjacent storage area and presented for servicing.

The area has been designed to ensure that all collection activities do not interfere with the movement of traffic both in and out of the basements below.

5.6.4.8 Bin Room Infrastructure

In accordance with Council requirements, the following infrastructure will be incorporated into the design of all chute and bin rooms, and waste storage and collection areas: -

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. The room will be fully enclosed and roofed with a minimum internal room height in accordance with the BCA 2016
6. The room is 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 to meet the requirements of the BCA 2016.

5.6.5 Servicing Arrangements – Waste Collections

All waste services will be provided by Penrith City Council's waste 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.

In accordance with Penrith Council's requirements for 'on-site collections' for large residential flat buildings of this type, Council's waste collection contractor will collect the bins directly from the bin storage area adjacent to the truck turntable/loading bay and empty the contents of the bins into the collection vehicle.

In order to assist and facilitate this process, the Building Manager / Caretaker will be responsible for presenting waste bins for servicing and returning them to the designated bin rooms and waste storage areas after collection.

According to Council's collection schedule, waste services are provided to this area weekly, on a day to be determined by the Council.

Waste bins will be presented for collection at a suitably arranged time, as specified by the Council. The waste bins will be returned to the storage area as soon as practicable after they have been serviced.

All 8 x 1100-litre mobile waste bins will be presented for servicing on each collection day.

5.6.6 Servicing Arrangements – Recycling Collections

All recycling services will be provided by Penrith City Council's 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.

In accordance with Penrith Council's requirements for 'on-site collections' for large residential flat buildings of this type, Council's recycling collection contractor will collect the bins directly from the bin storage area adjacent to the truck turntable/loading bay and empty the contents of the bins into the collection vehicle.

In order to assist and facilitate this process, the Building Manager / Caretaker will be responsible for presenting recycling bins for servicing and returning them to the designated bin rooms and waste storage areas after collection.

According to Council's collection schedule, recycling services are provided to this area weekly, Thursday of the week. Recycling bins will be presented for collection at a suitably arranged time, as specified by the Council. The recycling bins will be returned to the storage area as soon as practicable after they have been serviced.

All 8 x 1100-litre mobile recycling bins will be presented for servicing on each collection day.

5.7 GREEN WASTE

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.

5.8 BULKY WASTE STORAGE

Secure storage spaces are required to be provided for each residential unit in accordance with the provisions of Council's DCP 2014.

This space may be used to store bulky waste items that can be disposed of as part of any Council Clean Up services to be provided to this complex.

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

This area is located in the northern side of the bin storage area in Basement 2. It has an area of approximately 23 square metres (Council's requirement for 133 units is 20.47sqm).

All residents of the building will be provided with unrestricted 24-hour access to this facility.

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

The Owners Corporation will also be responsible for arranging 'Clean Ups' with the Council, 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.

In accordance with Council requirements, the following infrastructure will be incorporated into the design of all chute and bin rooms, and waste storage and collection areas: -

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. The room will be fully enclosed and roofed with a minimum internal room height in accordance with the BCA 2016
6. The room is 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 to meet the requirements of the BCA 2016.

5.9 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 Chute and Linear Tack Systems will be appropriately maintained in accordance with relevant manufacturers specifications and regular maintenance programs will be undertaken to ensure the efficient operation of all systems at all times.
2. The walls and floors of all Bin Rooms, Waste Storage and Collection Areas (WSA's) are to be constructed of smooth faced masonry or concrete, and all walls will be painted with light coloured and washable paint.
3. 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.
4. A floor waste, connected to the Sydney Water drainage system in accordance with that Authority's requirements, will be provided to all WSA's, and the floors will be graded to drain into it.
5. Appropriate washing facilities will be provided to all WSA's, including appropriate plumbing and drainage fixtures and fittings, and the provision of running water.
6. The WSA's will be washed and cleaned on a regular basis.
7. All mobile bins will be washed and cleaned on a regular basis.
8. All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.
9. Natural and mechanical ventilation will be required to be installed within each WSA in accordance with the relative provisions of the Building Code of Australia.
10. A Mobile Bin Towing Device, of an approved type, will be provided to transport and manoeuvre bins through the development.
11. Appropriate signage will be displayed in both basements clearly identifying waste and recycling bins and the waste storage areas.
12. Appropriate signage will be erected within each WSA providing instruction to residents on how to use waste and recycling facilities, including what is and what is not recyclable.
13. The Building Manager / Caretaker will be responsible for the supervision and management of all waste activities and facilities.

PART 6 – SUMMARY

6.1 SUMMARY

In summarising this proposal, the following information is provided:

1. Penrith City Council have insisted that all activities associated with the installation of waste management facilities and the provision of waste management services are to take place in accordance with the requirements of their waste management guidelines for residential flat buildings.
2. This Waste Management Plan has been developed and documented in accordance with the Councils directions.
3. The number and size of bins have been calculated from information provided by Penrith City Council.
4. All waste and recycling services will be provided by Council's respective waste and recycling collection contractors.
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.

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 Penrith City Council.