

DICKENS SOLUTIONS

(REF 21196)

WASTE MANAGEMENT PLAN

GUS FARES ARCHITECTS
(MR R BHUIYAN & MR M HAWATT)

PROPOSED MIXED RESIDENTIAL
(BOARDING HOUSE) & COMMERCIAL
DEVELOPMENT

@
31 STANTLEY ST & 2 BRINGELLY RD
KINGSWOOD

OCTOBER 2021

DISCLOSURE STATEMENT

The information contained in this document has been produced by Dickens Solutions Pty Ltd and is solely for the use of (The Client) for the purpose for which it has been prepared. In preparing this document, Dickens Solutions Pty Ltd undertakes no duty to, nor accepts any responsibility to, any third party that may rely upon this document.

This document and the information contained in the document shall not be copied or reproduced without the consent of Dickens Solutions Pty Ltd, and, or the Client.

Dickens Solutions Pty Ltd
(ABN 41 603 040 446)
1214 Botany Road, Botany NSW 2019

Website: www.dickenssolutions.com.au |

TABLE OF CONTENTS

PART	SUBJECT	PAGE
PART 1 – OVERVIEW & PROPOSAL		
1.1	Introduction	3
1.2	Description of Property	4
1.3	Applicants Details	4
1.4	Proposal	5
PART 2 – DEMOLITION		
2.1	Demolition – Generally	6
2.3	Buildings to be Demolished	6
2.2	Management of Hazardous Waste Materials	6
2.3	Demolition – Recycling, Reuse, and Disposal Details	7
2.4	Demolition – On Site Storage of Materials	12
2.5	Demolition – Excavated Material	12
PART 3 – CONSTRUCTION		
3.1	Construction – Generally	13
3.2	Construction – Recycling, Reuse and Disposal Details	13
3.3	Construction – On Site Storage of Materials	18
3.4	Construction – Excavated Material	18
PART 4 – GARBAGE CHUTE SYSTEM		
4.1	Design Requirements	19
4.2	Waste Chute System	20
4.3	Recycling Chute	20
4.4	Linear Track System	21
4.5	On Going Use, Maintenance & Management	21
PART 5 – ON GOING USE		
5.1	Objectives	22
5.2	Assumptions	22
5.3	Waste Handling & Management	23
5.4	Waste & Recycling – Service Requirements	23
5.5	Waste & Recycling – Service Arrangements	23
5.6	Provision of Waste & Recycling Services	25
5.7	Green Waste	27
5.8	Bulk Waste	27
5.9	Commercial Waste & Recycling Services	28
5.10	On Going Operation, Use & Management of Facilities	31
PART 6 – SUMMARY		
6.1	Summary	32

PART 1 – OVERVIEW AND PROPOSAL

1.1 INTRODUCTION

This Waste Management Plan (WMP) is an operational plan that 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: -

- a) Satisfy all State and Local Government regulatory controls regarding waste management and minimisation practices;
- b) Promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building;
- c) Maximise waste reduction, material separation, and resource recovery in all stages of the development; and,
- d) 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 that services are provided efficiently and effectively.

The land on which the development is proposed is located within the Penrith City LGA.

This WMP is prepared in accordance with: -

- Penrith Local Environmental Plan 2010,
- Penrith DCP 2014,
- All Conditions of Consent to be issued under the approved DA,
- The Better Practice Guide for Resource Recovery in Residential Buildings published by the NSW EPA (August 2019), and,
- The objective of ensuring that all waste management facilities and collection services will provide an outcome that will be efficient, as well as promoting the principles of health, safety, and convenience.

This Waste Management Plan (WMP) has been prepared for a Development Application submitted to Penrith City Council for the construction of a seven (7) storey building of mixed residential and commercial components at 30 Stantley Street and 3 Bringelly Road, Kingswood, comprising of:

- The demolition of existing structures,
- 97 x rooms (26 singles and 71 doubles) – 168 occupants,
- Three ground floor commercial units with a combined floor area of 314sqm,
- Two (2) basement levels, and,
- Associated infrastructure,

This Waste Management Plan and is dated 21 October 2021.

1.2 PROJECT & PROPERTY DESCRIPTION

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

DESCRIPTION	Mixed Use House Development.
PROPERTY DESCRIPTION	The development is to be constructed over three (3) existing allotments at: - Lot 5, in DP215200, 31 Stantley St, - Lot 4, in DP215200, 33 Stantley St, and, - Lot 3, in DP215200, 2A Bringelly Rd, Kingswood
STREET ADDRESS	31-33 Stantley Street & 2A Bringelly Road, Kingswood
DIMENSIONS	Refer to Survey & Site Plan
AREA	2,117.7sqm (Approx.)
LGA	Penrith City
ZONING	Zone R1 – General Residential
PLANNING INSTRUMENTS	- Penrith LEP 2010 - Penrith DCP 2014

The site is located over three (3) contiguous allotments of land on the south-eastern corner of Stantley Crescent and Bringelly Road, Kingswood, a short distance south of the Kingswood Railway and station and the main western suburban rail line.

The site is situated within the Kingswood town centre, in an area characterised by a mix of low and medium density, and commercial development, with the Western Sydney University precinct a short distance south-east.

The land is zoned R1 – General Residential and is currently occupied by a single story timber framed fibro dwelling, single storey building used as a medical centre, and a single storey brick and tile dwelling – all of which will be demolished to make way for the proposed development.

The Penrith city centre and railway station is 1km south-west of the site, with the Nepean River a short distance further west.

1.3 APPLICANTS DETAILS

APPLICANT	Mr R Bhuiyan & Mr M Hawatt
------------------	---------------------------------------

1.4 PROPOSAL

The proposal involves the construction of a seven (7) storey building of mixed residential and commercial components, comprising of:

- The demolition of existing structures,
- 97 x rooms (26 singles and 71 doubles) – 168 occupants,
- Three ground floor commercial units with a combined floor area of 314sqm,
- Two (2) basement levels, and,
- Associated infrastructure.

Egress from the development will be onto Stantley Crescent on the south-eastern frontage of the site.

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

A garbage chute has been incorporated into the building design for the residential boarding house component of the building only. The chute system will be a dual chute for the reception of both waste and recycling material. All waste chute infrastructure and 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.

A Commercial Waste Storage Area (CWSA) is provided for the commercial component of the building and is also located in Basement 1.

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

The site is currently occupied by:

- 2A Bringelly Road - a single storey timber framed fibro dwelling, with an iron roof, detached timber framed fibro garage, gravel driveway, concrete paving, some trees and small shrubs, front and rear grassed areas, metal, timber and brick (wall) fencing,
- 33 Stantley Crescent - a single storey rendered brick building with a tiled roof, currently used as a medical centre, bitumen car park and driveway, concrete paving, metal, iron and brick fencing, and,
- 31 Stantley Crescent - a single storey timber framed weatherboard dwelling, front veranda with a tiled roof, attached garage, detached shed, concrete driveway and paving, some trees and small shrubs, front and rear grassed areas, and metal perimeter fencing.

The project consists of:

- The demolition of the existing dwelling and all other structures on the site.
- The excavation of the site,
- The construction of the building; and,
- The provision and installation of associated infrastructure, including drainage works, and services.

PART 2 – DEMOLITION

2.1 GENERAL PROVISIONS

The proposed development involves the demolition of the existing buildings and other improvements on the site and the construction of a seven (7) storey building of mixed residential and commercial components.

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, excavation and construction works.

All waste materials generated from these activities will be dealt with this Part (Part 2) of this WMP, and all materials sourced will be disposed of in accordance with the information provided in Part 2.2 on pages 6, 7, 8, 9,10, 11 and 12 of this WMP.

All materials used in the demolition of the existing building, the excavation of the site, the construction works involved in the proposed development, and the provision and installation of all required infrastructure and services, shall be recycled, transported, reused or disposed of in accordance with these provisions, and 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 BUILDINGS TO BE DEMOLISHED

Current structures on the site include

- 2A Bringelly Road - a single storey timber framed fibro dwelling, with an iron roof, detached timber framed fibro garage, gravel driveway, concrete paving, some trees and small shrubs, front and rear grassed areas, metal, timber and brick (wall) fencing,
- 33 Stantley Crescent - a single storey rendered brick building with a tiled roof, currently used as a medical centre, bitumen car park and driveway, concrete paving, metal, iron and brick fencing, and,
- 31 Stantley Crescent - a single storey timber framed weatherboard dwelling, front veranda with a tiled roof, attached garage, detached shed, concrete driveway and paving, some trees and small shrubs, front and rear grassed areas, and metal perimeter fencing.

All buildings and structures are to be demolished.

2.3 MANAGEMENT OF HAZARDOUS MATERIALS

Due to the age and construction of the existing buildings on the site, there is reasonable 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.

2.4 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 2.3 of this Plan);
- c) How demolished, excavated and other materials surplus to requirements will be reused or recycled and where residual wastes will be disposed (see below); and,
- d) The total percentage of construction waste that will be reused or recycled.

1. Excavated Materials

Volume / Weight	740 cubic metres / 1,258 Tonnes
On Site Reuse	Yes. Keep and reuse for topsoil or as required. (Excavated Materials are only to be used if the material is not contaminated or has been remediated in accordance with any requirements specified by any Environmental Consultancy engaged to carry out any contamination assessment of excavated material).
Percentage Reused or Recycled	To be determined (see above comments)
Off Site Destination	Suez Eastern Creek 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	120 cubic metres / 18 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	100 cubic metres / 100 Tonnes
On Site Reuse	Crush and reuse as drainage backfill. Crushed and used as aggregate.
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).

4. Concrete, Bitumen, etc.

Volume / Weight	125 cubic metres / 300 Tonnes
On Site Reuse	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, Other approved facility

5. Timber

Volume / Weight	70 cubic metres / 28 Tonnes
On Site Reuse	Nil – all to be disposed of or processed off-site.
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	50 cubic metres / 17.5 Tonnes
On Site Reuse	Nil – all material to be processed off-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, Other approved facility

7. Metals / Steel / Guttering & Downpipes

Volume / Weight	60 cubic metres / 20 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).

8. Roof Tiles / Tiles

Volume / Weight	50 cubic metres / 37.5 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycled	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).

9. Plastics

Volume / Weight	15 cubic metres / 6 Tonne
On Site Reuse	Nil
Percentage Reused or 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).

10. Glass, Electrical & Light Fittings, PC items, Drainage Materials

Volume / Weight	60 cubic metres / 21 Tonne
On Site Reuse	No
Percentage Reused or Recycled	70% - 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).

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

Volume	60 cubic metres / 21 Tonne
On Site Reuse	Nil – all to be processed off-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).

12. Residual Waste

Volume / Weight	145 cubic metres / 145 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	<ol style="list-style-type: none"> 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 2.2) are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of work activities and constraints, weather conditions, and any other unforeseeable activities associated with the demolition and excavation activities, and 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.

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 receipt of these materials will be their responsibility.

The appointed contractor 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.

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

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

2.3 DEMOLITION – 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: -

- Material sorting;
- Segregation of materials that may be hazardous and which will be required to be disposed of;
- Recovery equipment, such as concrete crushers, chippers, and skip bins;
- Material storage; and,
- 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 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.

2.4 DEMOLITION – 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 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 13, 14, 15, 16, 17 and 18 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: -

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

1. Excavated Materials

Volume / Weight	12,000 cubic metres / 20,400 Tonnes (Basement excavation)
On Site Reuse	Yes. Keep and reuse topsoil for landscaping. Shore on site. Use some for support of retaining walls (Excavated Materials are only to be used if the material is not contaminated or has been remediated in accordance with any requirements specified by any Environmental Consultancy engaged to carry out any contamination assessment of excavated material).
Percentage Reused or Recycled	To be determined (see above comments)
Off Site Destination	To an approved Agency – excavated materials may need to be assessed to determine the quality of the material to ensure that all excavated material will be acceptable to the designated receival authority.

2. Bricks

Volume / Weight	5 cubic metres / 5 Tonnes
On Site Reuse	Clean and remove lime mortar from bricks. Re-use in new footings. Broken bricks for internal walls. Crush and reuse as drainage backfill. Crushed and used as aggregate.
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).

3. Concrete

Volume / Weight	2.5 cubic metres / 6 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).

4. Timber

Volume / Weight	5 cubic metres / 2 Tonnes
On Site Reuse	Re-use for formwork and studwork, and for landscaping
Percentage Reused or Recycled	65% - 90%
Off Site Destination	Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St. Marys (Tel 02 9833 0883)

5. Plasterboard & Fibro

Volume / Weight	2.5 cubic metres / 0.75 Tonnes
On Site Reuse	Nil – All to be processed off-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, other authorised facility.

6. Metals / Steel / Guttering & Downpipes

Volume / Weight	5 cubic metres / 1.5 Tonnes
On Site Reuse	No
Percentage Reused or Recycled	60 – 90%
Off Site Destination	Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Boral Recycling, 3 Thackeray Street, Camelia (Tel 9529 4424) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St. Marys (Tel 02 9833 0883), or, Jacobson Metaland, 62-70 Silverwater Road, Silverwater (Tel 02 9748 2487)

7. Roof Tiles / Tiles

Volume / Weight	2 cubic metres / 1.5 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycled	80% - 90%
Off Site Destination	Obsolete Tiles, 3 South Street, Rydalmere. (Tel 02 9684 6333) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St. Marys (Tel 02 9833 0883) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646)

8. Plastics

Volume / Weight	3 cubic metres / 0.5 Tonne
On Site Reuse	Nil
Percentage Reused or Recycled	80% - 95%
Off Site Destination	Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Boral Recycling, 3 Thackeray Street, Camelia (Tel 9529 4424) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St. Marys (Tel 02 9833 0883), or Jacobson Metaland, 62-70 Silverwater Road, Silverwater (Tel 02 9748 2487) or, Recycle Works, 45 Parramatta Road, Annandale (Tel 02 9517 2711)

9. Glass, Electrical & Light Fittings, PC items

Volume / Weight	4 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	5 cubic metres / 1.7 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Recycle Works, 45 Parramatta Road, Annandale (Tel 02 9517 2711)

11. Pallets

Volume / Weight	12.5 cubic metres / 4 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	1,250 cubic metres / 1,250 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	<ol style="list-style-type: none"> 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 building, which are beyond the control of the developer, including but not being limited to theft, accidents, and other acts of misadventure.

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 receipt of all 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.

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

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

- Material sorting;
- Segregation of materials that may be hazardous and which will be required to be disposed of;
- Recovery equipment, such as concrete crushers, chippers, and skip bins;
- Material storage; and,
- 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 garbage chute has been incorporated into the building design for the residential boarding house component of the building only. The chute system will be a dual chute for the reception of both waste and recycling material. All waste chute infrastructure and waste storage facilities areas are located in Basement 1 of the building.

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.

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 1 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 Residential Waste Storage Area (RWSA) located in Basement 1 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 the Residential Waste Storage Area (RWSA) 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 the Residential Waste Storage Area (RWSA) 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 WASTE CHUTE SYSTEM

A 'Chute Compartment' is provided to floor level of the building. Each chute compartment is located off the main lobby, on the northern side of the two (2) lifts.

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.

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 2 x 1100 litre mobile waste bin linear track system located under the Waste Chute Outlet in the RWSA which is located in Basement 1 as indicated on the Architectural Drawings.

Based on Council's waste generation rates (90-litres of space per unit per week), it is anticipated that the 97 rooms will generate 8,730-litres of waste per week, or 1,247.15-litres per day.

The capacity of the two (2) full 1100-litre bins on the track system is 2,200-litres. The chutes will be inspected at least one (1) time every day 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 under the chutes into the waste bin storage area of the RWSA.

4.3 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 the RWSA which is located in Basement 1 as indicated on the Architectural Drawings.

Based on Council's recycling generation rates (90-litres of space per unit per week), it is anticipated that the 97 rooms will generate 8,730-litres of recycling per week, or 1,247.15-litres per day.

The capacity of the two (2) full 1100-litre bins on the track system is 2,200-litres. The chutes will be inspected at least one (1) time every day 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 under the chutes, into the recycling bin storage of the RWSA.

4.4 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 systems 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.

4.5 ON GOING MANAGEMENT & MAINTENANCE OF CHUTE SYSTEM

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

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.

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 a seven (7) storey building of mixed residential and commercial components.
2. The residential component comprises of 97 x boarding house rooms (26 singles and 71 doubles) – 168 occupants.
3. The commercial component contains two (2) x ground floor commercial units and three (3) on Level 1 with a combined floor area of 314sqm.
4. For the boarding house component, a dedicated Residential Waste Storage Area (RWSA) is provided for the storage of all waste and recycling bins allocated for all 97 rooms.
5. The RWSA is located on the eastern side of the basement as indicated on the Architectural Drawings.
6. For the Boarding House component of the development, the following provisions will apply:
 - a) All waste material will be stored for servicing in 4 x 1100-litre mobile bins,
 - b) All recycling material will be stored for servicing in 4 x 1100-litre mobile bins,
 - c) All waste services will be provided two (2) days per week.
 - d) All recycling services will be provided two (2) days per week
 - e) The number and size of bins have been calculated from information provided by Penrith City Council in relation to waste and recycling generation rates as they are applied to Boarding House developments.
 - f) All waste, recycling, and green waste services will take place from a loading bay located next to the WSA
 - g) Due to limitations on the ceiling height under the first floor level (2.5m), the loading bay has been designed to accommodate a rear loading SRV collection vehicle.
 - h) As the Boarding House is classified as a commercial development, all waste and recycling services will be provided by a private licensed waste and recycling collection contractor.
7. For the Commercial component of the development, the following provisions will apply:
 - a) A Commercial Waste Storage Area (CWSA) is provided for the storage of all waste and recycling bins allocated for the three (3) commercial units.
 - b) The CWSA is located on the eastern side of the basement as indicated on the Architectural Drawings,
 - c) All waste material will be stored for servicing in 2 x 1100-litre mobile bins,
 - d) All recycling material will be stored for servicing in 2 x 1100-litre mobile bins,
 - e) All waste services will be provided once (1) per week.

- f) All recycling services will be provided once (1) per week
 - g) The number and size of bins have been calculated from information provided by Penrith City Council in relation to waste and recycling generation rates as they are applied to commercial land use activities.
 - h) All waste, commercial waste and recycling services will take place from a loading bay located next to the WSA
 - i) All commercial waste and recycling services will be provided by a private licensed waste and recycling collection contractor.
8. The Owners Corporation shall appoint a Building Manager whose responsibilities will include ensuring all waste management activities are carried out in accordance with this WMP.

5.3 WASTE HANDLING & MANAGEMENT

All boarding house occupants will be responsible for depositing their waste and recycling material into the appropriate bins.

All waste is to be placed in the red lidded waste bins. All recyclable material is to be placed in the yellow lidded recycling bins.

All waste and recyclables should be appropriately bagged or wrapped prior to being deposited into the designated bin.

Appropriate signage will be erected in the WSA to assist the occupants of the building in placing their waste and recyclables into the appropriate bins.

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.

5.5 RESIDENTIAL 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 advice from Council Officers and from information contained in Council's Multi-Unit Dwellings Waste Management Guidelines:

- Waste – 120 litres of bin space per room per week;
- Recycling – 120 litres of bin space per unit per week; and,
- Green Waste – Optional service – No service (see page 24).

Due to the minimal amount of external green space, all green waste generated from the use and occupation of the building will be disposed of by a professional landscape contractor.

For Boarding House establishments Council applies a discount rate of 75% for both waste and recycling, because they consider generation rates are less intense than for traditional forms of multi-unit housing.

TABLE 1 – WASTE & RECYCLING GENERATION RATES

SERVICE TYPE	ROOMS	BIN SPACE PER RM	BIN DISCOUNT RATE	TOTAL SPACE REQUIRED	BINS SIZE	SERVICES PER WEEK	BINS REQ'D	BINS PROVIDED
Waste	97	120	75%	8,730	1100	2	3.97	4
Recycling	97	120	75%	8,730	1100	2	3.97	4

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
4 x 1100 litre bins Two (2) Services per Week	4 x 1100-litre bins Two (2) Services per Week

5.6 PROVISION OF RESIDENTIAL WASTE & RECYCLING SERVICES

5.6.1 Waste and Recycling Collection Service Provider Details

All waste and recycling services will be provided by a licensed private contractor

5.6.2 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)
1100-litre mobile container	1.470	1.245	1.370

5.6.3 Waste & Recycling Requirements

Waste and recycling requirements are provided in the table below.

TABLE 3 – RESIDENTIAL WASTE & RECYCLING SERVICES

SERVICE	NUMBER OF CONTAINERS	COLLECTION FREQUENCY
Waste Service	4 x 1100-litre mobile containers	Two (2) Services per Week
Recycling Service	4 x 1100-litre mobile containers	Two (2) Services per Week

5.6.4 Location, Design, and Construction of Residential Waste Storage Area

The main Residential Waste Storage Area (RWSA) is located on the eastern side of the ground floor level of the building.

The RWSA will be an enclosed rectangular structure, measuring 7.0m x 5.0m, with a floor area of approximately 35.0sqm. Within its confines will be the following:

- The 2 x 1100-litre linear track waste chute system,
- The 2 x 1100-litre linear track recycling chute,
- Storage space for 2 x 1100-litre mobile waste bins, and,
- Storage space for 2 x 1100-litre recycling bins.

A secondary WSA will also be provided for the storage of 2 x 1100-litre waste bins and 2 x 1100-litre recycling bins. It is located next to the Commercial Waste Storage Area (CWSA) as indicated on the Architectural Drawings.

5.6.5 Collection Area / Loading Bay

All waste and recycling collection services will be provided from a loading bay located adjacent to the RWSA. The loading bay has been designed to accommodate arear loading SRV with the following (approximate) design specifications:

- Length – 6.4m,
- Height – 2.2m (maximum), and,
- Width – 2.5m.

Due to the design of the building, it is not possible for Council's collection vehicle to access the basement, as such all residential waste and recycling services to the development will be provided by a licensed private waste and recycling collection vehicle using a rear loading SRV collection vehicle.

Based on industry sources, it is understood that there are a number of private waste and recycling collection contractors who have resources, including SRV's, and who would be willing to provide these services to the development.

5.6.6 Servicing Arrangements – Waste Collections

All waste services will be provided by a licensed private waste and recycling collection contractor. All waste collections will take place from the loading bay as detailed in Part 5.6.5 on pages 25 and 26.

The waste bins will be presented for servicing by the contractor's representative and returned to the RWSA, as soon as serving has been completed.

The waste bins will be serviced two (2) days per week on days to be determined.

All 4 x 1100-litre waste bins will be serviced on each collection day.

5.6.7 Servicing Arrangements – Recycling Collections

All recycling services will be provided by a licensed private waste and recycling collection contractor. All recycling collections will take place from the loading bay as detailed in Part 5.6.5 on pages 25 and 26.

The recycling bins will be presented for servicing by the contractor's representative and returned to the RWSA, as soon as serving has been completed.

The recycling bins will be serviced two (2) days per week on days to be determined.

All 4 x 1100-litre recycling bins will be serviced on each collection day.

5.7 GREEN WASTE

Due to the minimal amount of external green space, all green waste generated from the use and occupation of the building will be disposed of by a professional landscape contractor.

5.8 BULKY WASTE AREA

As required by Council, a bulky waste storage area will be provided. The area is located adjacent to the Waste Storage Area as indicated on the Architectural Drawings. It has an area of 12.0sqm. The doorway to the Bulky Waste Area will be 1.5m in width.

5.9 COMMERCIAL WASTE & RECYCLING SERVICES

5.9.1 Details of Commercial Land Uses

Details of the commercial units are provided in the table below.

TABLE 3 – COMMERCIAL UNITS

TENANCY	PROPOSED USE	LOCATION	FLOOR AREA (Sqm)
Commercial 1	To be Determined	Ground Floor	214
Commercial 2	To be Determined	Ground Floor	150
Commercial 3	To be Determined	Ground Floor	170

Notwithstanding the fact that the use of each unit has yet to be determined, for the purposes of this WMP it will be assumed that they will be used as follows:

- Commercial 1 – Retail shop (no food),
- Commercial 2 – Professional Office,
- Commercial 3 – Takeaway Café, and,

5.9.2 Waste & Recycling Generation Rates

The Table below (Table 4) details the waste and recycling generation rates for the land uses proposed. These rates have been obtained from the EPA's Better Practice Waste Management Guide as Council's guidelines do not provide for Waste and Recycling Generation Rates for commercial land use activities.

TABLE 4 – 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)	100 litres of recyclables per 100sqm of floor area per day
Waste	Office	10 litres of waste per 100sqm of floor area per day
Recycling	Office	15 litres of recyclables per 100sqm of floor area per day
Waste	Takeaway Food Shop	120 litres of waste per 100sqm of floor area per day
Recycling	Takeaway Food Shop	60 litres of recyclables per 100sqm of floor area per day

5.9.3 Commercial Waste Service Requirements

The following table (Table 5) specifies the criteria for waste generation rates (as specified in Part 5.8.2.

TABLE 5 – COMMERCIAL WASTE GENERATION RATES & SERVICE REQUIREMENTS

DESCRIPTION	UNIT 1 Retail (No Food)	UNIT 2 Office	UNIT 3 Takeaway Café
Waste Generation Rate	50L/100sqm Floor Area/Day	10L/100sqm Floor Area/Day	120L/100sqm Floor
Total Floor Area	214sqm	150sqm	170sqm
Waste Generation/Week	50 x 214 / 100 x 6 (Days)	10 x 150 / 100 x 6 (Days)	120 x 170 / 100 x 7 (Days)
Space Required/Week	642.00	90.00	1,428.00
TOTAL SPACE REQUIRED ALL UNITS	2,160.00-litres of Space to be serviced per Week		
SERVICE REQUIREMENTS	(2,200-Litres of Space Serviced per Week) 2 x 1100-litre waste bins – serviced one (1) day per week		

It is considered that the most efficient, economic and practical method of providing waste services to all units would be to have one (1) service provider doing all

services.

It is considered that the above arrangements would comply with all service requirements. 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.

If the Owners Corporation chooses to enter into individual arrangements with each tenant, where different service providers are used for each or some of the units in unison, all waste services would need to be provided in an appropriate number of waste bins and at such frequencies to meet the waste generation rates specified above.

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 upon request.

5.9.4 Commercial Recycling Service Requirements

The following table (Table 6) specifies the criteria for recycling generation rates (as specified in Part 5.8.2.

TABLE 6 – COMMERCIAL RECYCLING GENERATION RATES & SERVICE REQUIREMENTS

DESCRIPTION	UNIT 1 Retail (No Food)	UNIT 2 Office	UNIT 3 Takeaway Café
Recycling Generation Rate	100L/100sqm Floor Area/Day	15L/100sqm Floor Area/Day	60L/100sqm Floor
Total Floor Area	214sqm	150sqm	170sqm
Recycling Generation/Week	100 x 214 / 100 x 6 (Days)	15 x 150 / 100 x 6 (Days)	60 x 170 / 100 x 7 (Days)
Space Required/Week	1,284.00	135.00	714.00
TOTAL SPACE REQUIRED ALL UNITS	2,133.00-litres of Space to be serviced per Week		
SERVICE REQUIREMENTS	(2,200-Litres of Space Serviced per Week) 2 x 1100-litre recycling bins – serviced one (1) day per week		

It is considered that the most efficient, economic and practical method of providing recycling services to all units would be to have one (1) service provider doing all services.

It is considered that the above arrangements would comply with all service requirements. All commercial recycling services will be provided by a licensed private waste contractor.

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

If the Owners Corporation chooses to enter into individual arrangements with each tenant, where different service providers are used for each or some of the units in unison, all recycling services would need to be provided in an appropriate number of waste bins and at such frequencies to meet the recycling generation rates specified above.

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 recycling 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 recycling services will be provided. A copy of this agreement will be provided to the Council.

5.9.5 Storage of Commercial Waste and Recycling Bins

A Commercial Waste Storage Area (CWSA), is provided for the storage of all waste and recycling bins associated with the use and occupation of all commercial and retail units within the complex.

The Commercial WSA is located on the ground floor as indicated on the Architectural Drawings. It is an enclosed structure, measuring 4.50m x 2.67m with an area of 12sqm, and will provide space for:

- 2 x 1100-litre waste bins, and,
- 2 x 1100-litre recycling bins.

All waste and recycling material derived from all commercial units will be stored within the confines of the CWSA at all times.

The Owners Corporation will be responsible for ensuring that all commercial waste and recycling services are 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.

5.9.6 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 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.

All services will be provided from the loading bay as indicated on the Architectural Drawings. All waste and recycling bins will be returned to the CWSA immediately after they have been serviced.

5.10 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 the Waste Storage Area is 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. Appropriate washing facilities will be provided to the WSA.
4. The WSA will be washed and cleaned on a regular basis.
5. All mobile bins will be washed and cleaned on a regular basis.
6. All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.
7. 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.
8. Appropriate signage will be displayed clearly identifying waste and recycling bins and the WSA.
9. Appropriate signage will be erected within the WSA, providing instruction 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 5 – SUMMARY

5.1 SUMMARY

In summarising this proposal, the following information is provided:

1. This Waste Management Plan (WMP) has been developed and documented in accordance with the Penrith City Council's Waste Management DCP.
2. The number and size of bins have been calculated from information provided by Penrith City Council and from the Council's Waste Management DCP Appendix F5 'Technical Information – Waste and Recycling Generation Rates' (Table F5.8), page F5-34.
3. As the use and operation of a boarding house is considered a commercial enterprise, all waste and recycling services will be provided by a licensed private waste collection contractor.
4. 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.
5. The WMP aims to promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building;
6. 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.
7. 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 Penrith City Council.
